TÜV CERT

CERTIFICATE

The TÜV CERT Certification Body
for QM Systems of RWTÜV Systems GmbH

hereby certifies in accordance with TÜV CERT procedure that

ELITEGROUP COMPUTER SYSTEMS CO., LTD.
ECS MANUFACTURING (SHENZHEN) CO., LTD.
ELITE TECHNOLOGY (SHENZHEN) CO., LTD.

2F, No. 240, Sec. 1, Nei Hu Road, Taipei, Taiwan 114
No. 22, Alley 38, Lane 91, Sec. 1, Nei Hu Road, Taipei, Taiwan 114
No. 20 & No. 26, Free Trade Zone, Shatoujiao, Shenzhen City, GuangDong Province, China

has established and applies a quality system for

Design, Manufacturing and Sales of Mainboards, Personal Computers, Notebooks and Peripheral Cards

An audit was performed, Report No. **2.5-1585/2000**

Proof has been furnished that the requirements according to

ISO 9001 : 2000 / EN ISO 9001 : 2000 / JIS Q 9001 : 2000 / ANSI/ASQC Q9001 : 2000

are fulfilled. The certificate is valid until **27 January 2007**

Certificate Registration No. **04100 2000 1325**

The company has been certified since **2000**

Essen, 04.03.2004

RWTÜV

The TÜV CERT Certification Body for QM Systems of RWTÜV Systems GmbH

CERTIFICATION SSCC

ISO14001 CERTIFICATE

Certificate No.: 061-04-E1-0065-R1-L

We hereby certify that

ECS MANUFACTURING (SHANZHEN) CO., LTD.

by reason of its

Environmental Management System

has been awarded this certificate for compliance with the standard

ISO14001:1996

The Environmental Management System applies in the following area:

ECS MANUFACTURING (SHANZHEN) CO., LTD.
located at No. 20 & 26 (except 1F, 2F), Free Trade Zone,
Shatuojiao, Shenzhen City, Guangdong Province, P. R. China.
is engaged in manufacturing of Mother Board and Peripheral Card,
and interrelated managerial activities.

Date of issue: 28th Sept. 2004
Date of expiry: 27th Sept. 2007
Signed by:

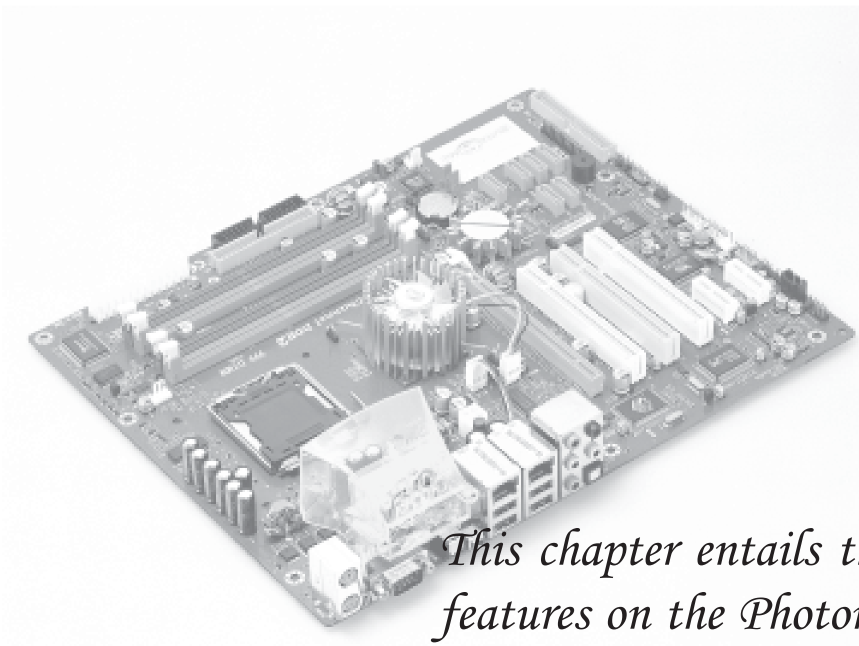
CNAB

SHENZHEN SOUTHERN CERTIFICATION CO., LTD.

ECS ELITEGROUP

Table of Contents

EXTREME



This chapter entails the newest technology and rich features on the Photon Extreme motherboard.

Reference

1.1 Introduction

Thank you for choosing the ECS PF21 Extreme motherboard.

The PF21 Extreme is the next generation of high performance motherboard designed to support the LGA775 socket Intel Pentiun4 Processors.

This motherboard has an ATX form factor that uses a 6-layer printed circuit board and measures 305 mm x 244 mm.

The PF21 Extreme motherboard is based on the Intel 925XE Northbridge and ICH6R chipsets to set a new benchmark for the best desktop platform solution. Supporting up to 4 GB of system memory with DDR2 533/400 DDR DIMMs, high resolution graphics via PCI Express ports, Dual LAN, USB 2.0, 8-channel audio, Digital S/PDIF in/out, SATA support and RAID function.

1.2 Package Check List

Motherboard



User's Guide



Installation CD



SATA Power Cable



Top Hat Flash



I/O Shield



Two Streamlined IDE & FDD Ribbon Cable



Two SATA Cables



Cross Over Cable



USB+1394 PCI Bracket & housing



*Accessories are subject to change without prior notice.

1.3 Feature Summary

CPU	• LGA775 Socket for Intel Pentium 4 processor • FSB 1066/800MHz (266/200MHz Core Clock) • Supports Hyper-Threading Technology
Chipset	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memory	• Dual-channel DDR memory architecture • 4 x 240-pin DDR2 DIMM socket support up to 4 GB • Supports DDR2 533/400 • Supports Non-ECC unbuffered 1.8V DDR DIMMs
Expansion Slots	• 1 x PCI Express x16 • 2 x PCI Express x1 • 3 x PCI Slots
Storage	• Supported by ICH6R - 2 x Ultra DMA100/66 devices - 4 x SATA devices, - RAID 0 and RAID 1 configuration • Supported by SiS180 - 2 x Ultra DMA133/100/66 devices - 2 x SATA devices - RAID 0, RAID 1, RAID 0+1 configuration
IEEE 1394a	• VIA VT6307 IEEE1394a controller • Supports 2 x IEEE1394a portrs
Audio	• CMI9880 8-channel audio CODEC • Compliant with Intel Azalia specification
Dual LAN	• Marvel 88E8001 Gigabit LAN Controller • Realtek8100C 10/100 Mbps Fast Ethernet Controller
Rear panel I/O	• 1 x PS/2 keyboard connector • 1 x PS/2 mouse connector • 4 x USB ports • 2 x RJ45 LAN connectors • 1 x Serial port (COM1) • 1 x Digital SPDIF out • 1 x Digital SPDIF in • Line-out/Line-in/Microphone in connectors
BIOS features	• Award BIOS with 4Mb Flash ROM • Supports Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Supports ACPI revision 1.0B specificaion
Internal I/O	• 1 x 24-pin ATX Power Supply Connector & 4-pin 12 V Connector

	• 1 x Floppy connector- supports 360K ~ 2.88M Bytes, 3 Mode FDDs or LS120 • 2 x IDE connectors • 6 x Serial ATA connectors • 2 x USB 2.0 headers support additional 4 USB ports • 1 x 1394a header • 1 x SMBus header • 1 x Front panel switch/LED header • 1 x Front panel audio header • 1 x LPT header • 1 x CHS1 header • 1 x SMI1 header • CD in header • CPUFAN/NB_FAN/SYSFAN connectors
Form Factor	• ATX size • 305mm x 244mm

1.4 Special Features

Extreme Power

Device plug with USB-like ease!

Upgrade your PC to Server-grade power now!

Slash memory access time!

New generation of I/O interface!

One-key boot device selection!

Awesome overclocking!

Uncompromising DVD audio quality!

The best aluminum capacitors empowering!

6-layer PCB!

Extreme Guardian

Auto restart after power loss!

PC protection tool kit!

A 'time machine' to protect and restore files!

Become your own BIOS 'doctor'!

Memory module alert!

Fuzzy logic design for diagnosing PCI slots health!

Extreme Link

Add peripherals and consumer electronics devices!

PCI 2.3 support!

Smart LAN!

All the USB 2.0 connectivity you'll ever need!

More port options!

Industrial-strength LAN power!

Auto-negotiate your 10/100M LAN!

Let your PC as a fileserver!

Keep best audio quality!

Let your PC as a fileserver!

More options for data storage!

A cooling channel with a fansink placed on top of the PWM controller!

Server Class Dual LAN for both Internet & Intranet!

Extreme Genius

Color-coding for easy connections!

Flash BIOS from Windows!

Rounded corners for strength and safety!

Cool operations, cool appearance!

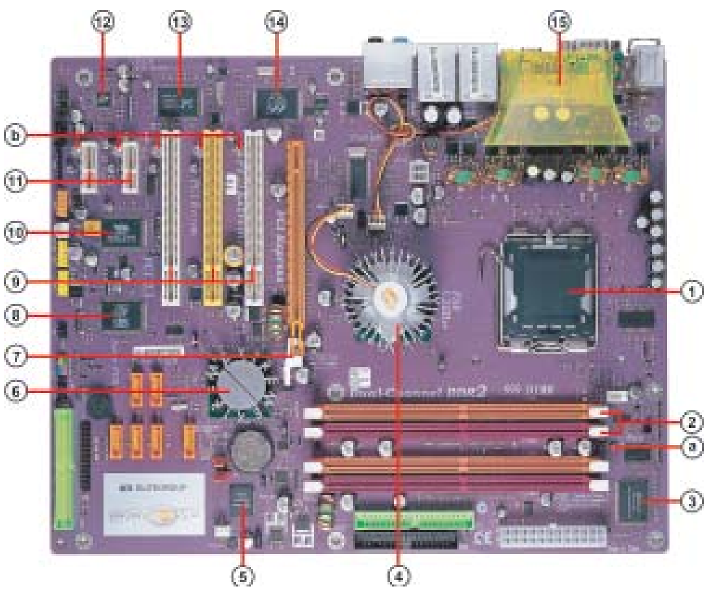
Eliminate data highway roadblocks!

Ultra sound quality!

An dust-proof auto shutter for optical connector!

Clear & Clean!

1.5 Major Components



1. ***CPU socket***
   LGA775 surface mount, Zero Insertion Force socket for latest Intel Pentium 4 Processors support FSB 1066/800MHz (266/ 200MHz Core Clock)
2. ***Dual-channel DDR2 DIMM sockets***
   These four 240-pin DIMM sockets support up to 4GB system memory using unbuffered DDR2 533/400 DDR DIMMs.
3. ***Super I/O (83627THF) controller***
   The Winbond 83627THF Low Pin Count (LPC) interface provides the commonly used super I/O functionality. The chipset support a high performance floppy disk controller, a multi-mode parallel port, one serial port, the mouse and keyboard interface.
4. ***Northbridge controller***
   925XE is a Memory Controller Hub (MCH) designed for use with the Pentium 4 processor in desktop platforms. It also supports PCI Express specification.
5. ***Flash ROM***
   This 4Mb ROM contains the programmable BIOS program.
6. ***Southbridge controller***
   The Intel ICH6R integrated peripheral controller supports various I/O functions including four Serial ATA connectors, dual channel Ultra DMA100/66/33 master mode EIDE controller, up to eight USB

2.0 ports, Azalia Audio interface, and PCI 2.3 interface.

7. ***PCI Express x16 (PCI-E1) slot***
   This 925XE has one x16 PCI Express slot, which is intended for an external PCI Express graphics card.

8. ***SiS 180 Serial ATA controller***
   This motherboard incorporates the high performance SiS 180 IDE RAID controller, which supports RAID 0, RAID 1 and RAID 0+1 configuration.

9. ***PCI slots***
   These three 32-bit PCI 2.3 expansion slots support bus master PCI cards like SCSI or LAN cards with 133MB/s maximum throughput.

10. ***IEEE 1394a controller***
    The IEEE 1394a controller provides high-speed and flexible PC connectivity to a wide range of peripherals and devices compliant to IEEE 1394a standards. The IEEE 1394a interface allows up to 400Mbps tranfer rates.

11. ***PCI Express x1 (PCI-E2/PCI-E3) slots***
    The two PCI Express x1 slots are fully compliant to the PCI Express Base Specification revision 1.0a

12. ***Audio CODEC***
    The audio CODEC is compliant with Intel Azalia spec and supports 8-channel High Definition audio.

13. ***10/100Mbps LAN Controller***
    The 10/100Mbps LAN delivers a transfer rates up to 10/100 Mbps.

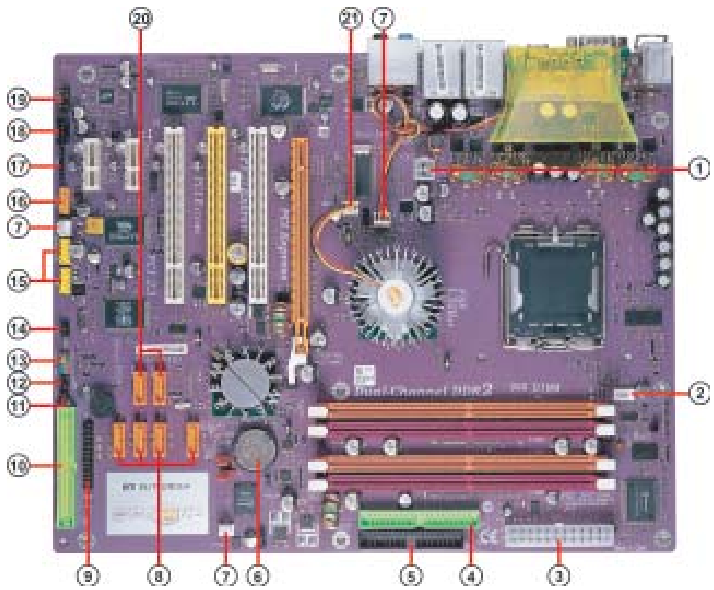
14. ***Gigabit LAN controller***
    The Gigabit LAN controller delivers transfer rates up to 10/100/1000Mbps Ethernet connection. Ideal for handling large amounts of data such as video, audio and voice.

15. ***Cooling Accelerator***
    The cooling accelerator supercharges airflow exchange between the chassis interior and exterior, keeping operating temperatures under control.

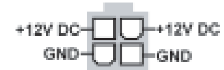
a. ***Anti-Burn LED indicator***
   When this LED is light up, do not remove the memory module from your DIMM slot or else your memory module will be damaged.

b. ***PCI LED indicator***
   The PCI LED indicates the PCI slot activity. These LEDs will stop blinking when any add-on card has been installed. Blinking means no add-on card installed or the add-on card was not properly installed.

1.6 Headers and Connectors

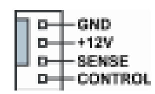


1. ***ATX12V (ATX 12V Power Connector, 4 pin, White)***



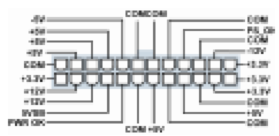
This connector supplies the CPU operation voltage (Vcore). Don't forget to connect the 4-pin ATX 12V connector, otherwise the system cannot boot up.

2. ***CPU_FAN1 (CPU Fan Connector, 4 pin, White)***



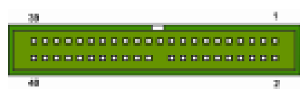
Please note that a proper installation of the CPU cooler is essential to prevent the CPU from running under abnormal condition or damaged by overheating. The fan connector supports the CPU cooling fan of 1.1A~2.2A (26.4W max.) at +12V.

3. ATX1 (ATX PWR Connector, 24 pin, White)



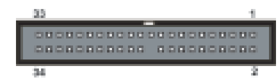
AC power cord should only be connected to your power supply until after ATX power cable and other related devices are firmly connected to the motherboard. Make sure that your ATX12V power supply could provide 8A of 12V and at least 1A on the +5V standby. The minimum recommended power is 300W for a fully-configured system. If not, the system may become unstable or may not even boot up.

4. IDE1 (IDE1 Connector, 40-1 pin, Green)



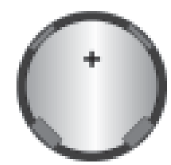
IDE1 is supported by ICH6R South Bridge. Please connect the first hard disk to IDE 1. The streamline IDE cable must be the same side with the Pin 1.

5. FDD1 (Floppy Connector, 34-1 pin, Black)



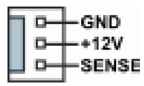
Please connect the floppy drive ribbon cables to FDD. It supports 360K, 12M, 720K, 1.44M and 2.88M bytes floppy disk types.

6. Battery



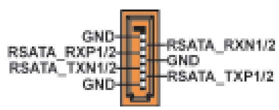
Danger of explosion if battery is incorrectly replaced. Replace only with the same of equivalent type recommended by the manufacturer.

7. SYSFAN1/SYSFAN2/SYSFAN3(System Fan Connectors, 3 pin, White)



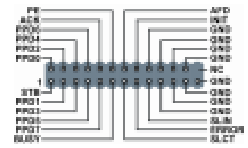
If you installed wrong direction, the chip fan will not work. Sometimes will damage the chip fan.

8. SATA1/2/3/4 (Serial ATA Connectors, 7 pin, Orange)



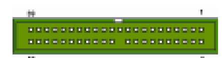
These next generation connectors are delivered by ICH6R South Bridge support the thin Serial ATA cables for Serial ATA hard disks. The current Serial ATA interface allows up to 150MB/s data transfer rate, faster than the standard parallel ATA with 133MB/s (UltraATA 133)

9. LPT1 (Onboard LPT Port, 26-1 pin, Black)



This 25-pin port connects a parallel printer, a scanner, or other devices.

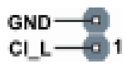
10. IDE2 (IDE2 Connector/IDE RAID ATA133 Connector, 40-1 pin, Green)



This is supported by SiS180. The streamline IDE cable must be the same side with the Pin 1. This connector supports either RAID 0 or RAID 1 configuration through the onboard SiS180 controller. You can connect two UltraATA 133 hard disks to this connector and set up a disk array configuration. You may also set up the UltraATA 133 hard disks with the Serial ATA hard disks on the Serial ATA RAID connectors to create a multi-RAID configuration.

***Note**: To install the OS, the CD-ROM must be installed on IDE1. You may as well connect the CD-ROM to IDE2, only after SiS180 driver is installed before you start using it!*

11. CHS1 (Chassis Intrusion Detect Header, 2 pin, Black)



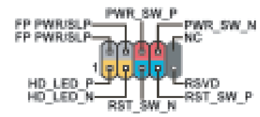
This header allows users to detect unauthorized intrusion to the case. It will alert users with a warning message when the case is turned on.

12. SMI1 (System Management Interrupt Header, 2 pin, Black)



This connector is for use with SMI hardware interrupt power management.

13. PANEL1 (Front Panel Switch/LED Header, 10-1 pin)



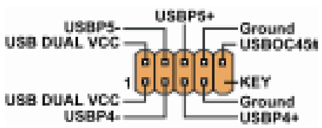
The front panel connector provides a standard set of switch and LED connectors commonly found on ATX or micro-ATX cases.

14. IR1 (Infrared Header, 6-1 pin, Black)



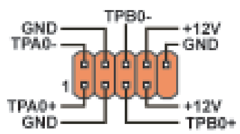
The motherboard supports an infrared (IR1) data port. Infrared ports allow the wireless exchange of information between your computer and similarly equipped devices such as printers, laptops, Personal Digital Assistants (PDAs), and other computers.

15. USB3/USB4 (Front USB Headers, 10-1 pin, Yellow)



If the USB ports on the rear panel are inadequate, two USB headers are available for additional USB ports. The USB header complies with USB 2.0 specification that supports up to 480 Mbps connection speed. This speed advantage over the conventional 12 Mbps on USB 1.1.

16. 1394A2 (IEEE 1394a Header, 10-1 pin, Orange)



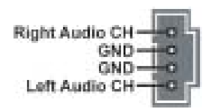
Attach the 10-1 pin 1394 cable plug from the device to this connector. You may also connect a 1394-compliant internal hard disk to this connector.

17. SMB1 (SMBus Header, 6-1 pin, Black)



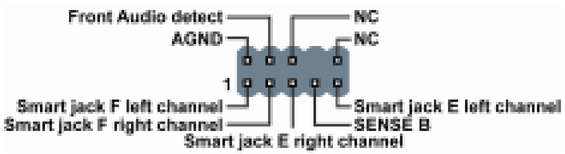
This connector allows you to connect SMBus (System Management Bus) devices. Devices communicate with an SMBus host and/or other SMBus devices using the SMBus interface.

18. CDIN1 (CD In Connector, 4 pin, Black)



Connect CD-ROM or DVD-ROM audio out to the connector.

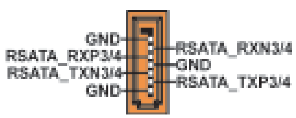
19. AUDIO1 (Front Panel Audio Header, 10-1 pin, Purple)



This is an interface for the Intel front panel audio cable that allows convenient connection and control of audio devices.

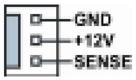
If your front panel cable is seperated, please connect it to pin1 and pin3 or pin5 and pin7 to activate the MIC function.

20. SATA5/6 (Serial ATA RAID Connectors, 7 pin, Orange)



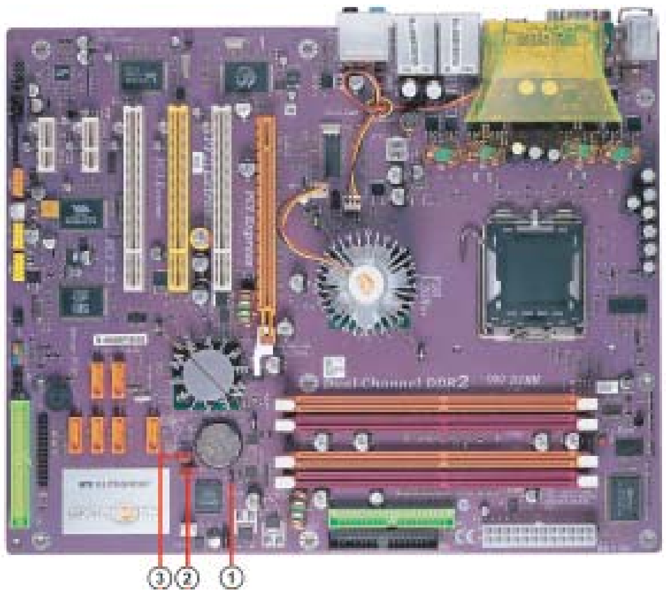
These Serial ATA connectors support SATA hard disks that you may configure as a RAID set. Through the onboard SiS180 RAID controller you may create a RAID 0, RAID 1, RAID 0+1, or multiRAID configuration together with the RAID ATA133 connector.

21. NBFAN1 (Northbridge Fan Connector, 3 pin, White)



If you installed wrong direction, the chip fan will not work. Sometimes will damage the chip fan.

1.7 Jumpers

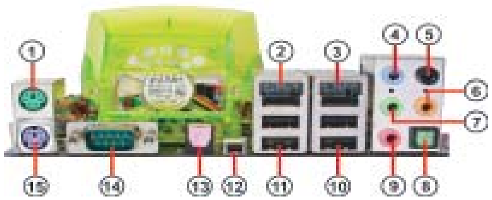


1. ***BIOS_WP1 (Flash Protect)***
   This jumper enables you to prevent the BIOS from being updated (flashed).
   Open: Disable (Default)
   Short: Enable

2. ***JP1 (Clear CMOS)***
   This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS. You can clear the CMOS memory of date, time, and system setup parameters by erasing the CMOS RAM data. Before clearing the CMOS data, make sure to turn the system off.

3. ***JP10 (Clear RTC) (Optional)***
   This jumper allows you to clear the Real Time Clock (RTC) RAM in CMOS.

1.8 Rear Panel



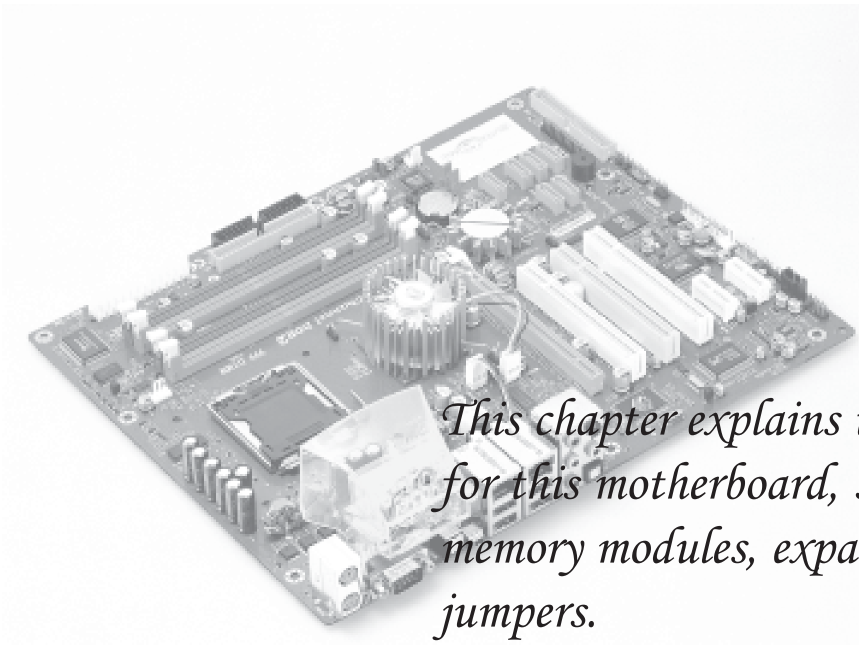
1. ***PS/2 mouse port***
   This 6-pin connector is for connecting PS/2 mouse.
2. ***RJ-45 port***
   This port allows connection to a Local Area Network (LAN) through a network hub. It supports up to 10/100Mbps transfer rate.
3. ***RJ-45 port***
   This port allows connection to a Local Area Network (LAN) through a network hub. It supports up to Gigabit tranfer rate.
4. ***Side Surround Jack ****
   This jack connects a tape player or other audio sources. In 8-channel mode, the function of this jack is Side Surround speaker out.
5. ***Back Surround Jack*** *
   This jack connects a tape player or other audio sources. In 8-channel mode, the function of this jack is Back-Surround speaker out.

6. ***Center/Bass Jack ****
   This jack connects a tape player or other audio sources. In 8-channel mode, the function of this jack is Center/Bass speaker out.
7. ***Front Out Jack ****
   This jack connects a tape player or other audio sources. In 8-channel mode, the function of this jack is Front speaker out.
8. ***Optical S/PDIF output port***
   This jack connects to external digital audio output devices.
9. ***Microphone in Jack ****
   The function of the jack is microphone input.

10/11. USB 2.0 ports 3/4
These Universal Serial Bus (USB) ports are available for connecting USB 2.0 devices.

12. ***1394_A1 port***
    Use the 1394a port to connect any Firewire device.
13. ***S/PDIF input port***
    This jack connects to external digital audio input devices.
14. ***Serial port***
    This 9-pin COM1 port is for serial devices.
15. ***PS/2 keyboard port***
    This 6-pin connector is for connecting PS/2 keyboard.

The audio ports with a * sign can be changed to audio input or audio output by changing the driver utility setting.



This chapter explains the hardware setup procedure for this motherboard, such as installing the CPU, memory modules, expansion cards, as well as the jumpers.

Reference

2.1 Installing the CPU & the CPU cooling fan



A. Unload the cap
- Use thumb & forefinger to hold the lifting tab of the cap.
- Lift the cap up and remove the cap completely from the socket.

B. Open the load plate
- Use thumb & forefinger to hold the hook of the lever, pushing down and pulling aside unlock it.
- Lift up the lever.
- Use thumb to open the load plate. Be careful not to touch the contacts.



C. Install the CPU on the socket
- Orientate CPU package to the socket. Make sure you match the triangle marker to the pin 1 location.



D. Close the load plate
- Slightly push down the load plate onto the tongue side, and hook the lever.
- CPU is locked completely.

E. Apply thermal grease on top of the CPU.



F. Fasten the cooling fan supporting base onto the CPU socket on the motherboard.

G. Make sure the CPU fan is plugged to the CPU fan connector. Please refer to the CPU cooling fan user's manual for more detailed installation procedure.

To achieve better airflow rates and heat dissipation, we suggest that you use a high quality fan with 3800 rpm at least. CPU fan and heatsink installation procedures may vary with the type of CPU fan/heatsink supplied. The form and size of fan/heatsink may also vary.

2.2 Installing Memory Module



1. Push the latches on each side of the DIMM slot down.
2. Check that the cutouts on the DIMM module edge connector match the notches in the DIMM slot.
3. Install the DIMM module into the slot and press it firmly down until it seats correctly. The slot latches are levered upwards and latch on to the edges of the DIMM.

Table A: Recommended dual-channel DDR2 configurations

DIMM1	DIMM2	DIMM3	DIMM4	Dual Channel
√		√		√
	√		√	√
√	√	√	√	√

Notes: When using dual channel mode, install only same (same density, DRAM technology and DRAM bus width) module for each dual channel.

Memory module install into one or any four sockets will function in single channel mode.



925XE chipset can only support 256-Mb, 512-Mb and 1-Gb DDR technologies for x8 and x16 device, NOT support 128-Mb DDR technology. That is, 256 MB Double Side Memory Module & 128 MB Single Side Memory Module are NOT support.

2.3 Connecting IDE, Floppy and SATA cable

1. Connect the IDE/Floppy disk ribbon cable. Make sure the side of the cable with the red stripe on it is plugged into *pin 1* side of the disk connector.
2. Connect the SATA cable to the SATA hard drive or the connector on the motherboard.



IDE connector



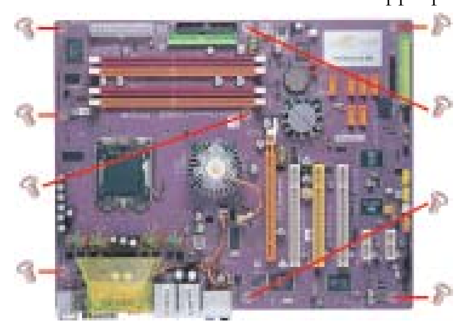
FDD connector



SATA connector

2.4 Installing Motherboard in a case

1. Place the motherboard over the mounting brackets.
2. Secure the motherboard with screws where appropriate.



3. Double check to make sure that the underside of the motherboard is not touching the case or else shorting may occur and make sure that the slots and I/O connectors line up with the holes on the back of the case.
4. Case LED leads are labeled, connect the leads to the panel header on the motherboard.

2.5 Connecting IDE, Floppy & SATA Device

1. If installing two IDE devices on the same ribbon cable, one device must be set to "master" and the other to "slave." Check the accompanying documents for the master/slave settings of IDE Devices, ie.: the hard disk and CD-ROM drives and then set their jumper caps accordingly.
2. Mount the drives in the case.
3. Connect the floppy disk ribbon cable and power cable.
4. Connect the IDE ribbon cable and power cable.



IDE Hard Disk



Floppy Disk Device



SATA Hard Disk

2.6 Installing Expansion cards

1. Remove the slot covers from the case where you will be installing the expansion cards.
2. Install your graphics card in the proper slot if your motherboard does not have integrated graphics.
3. Press the card firmly into the slot
4. Secure the card with the screw from step 1.
5. Install other expansion cards using the same procedure.



Graphics card



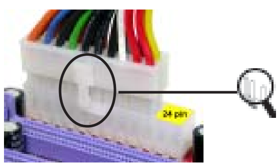
PCI card

2.7 Connecting the Power supply cable

The ATX power connector is keyed for proper insertion. There are two connectors for 4-pin and 24-pin ATX power cable. The plastic clip on the power connector should lock over the plastic tab on the motherboard power connector.

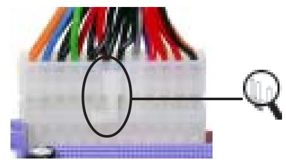
Connecting 20/24-pin power cable

Users please note that the 20-pin and 24-pin power cables can both be connected to the ATX1 connector. With the 20-pin power cable, just align the 20-pin power cable with the pin 1 of the ATX1 connector. **However, using 20-pin power cable may cause the system to become unbootable or unstable because of insufficient electricity.**



20-pin power cable

Users please note that when installing 20-pin power cable, the latche of power cable clings to the left side of the ATX1 connector latch.



24-pin power cable

Users please note that when installing 24-pin power cable, the latch of power cable connector clings to the right side of the ATX1 connector latch.

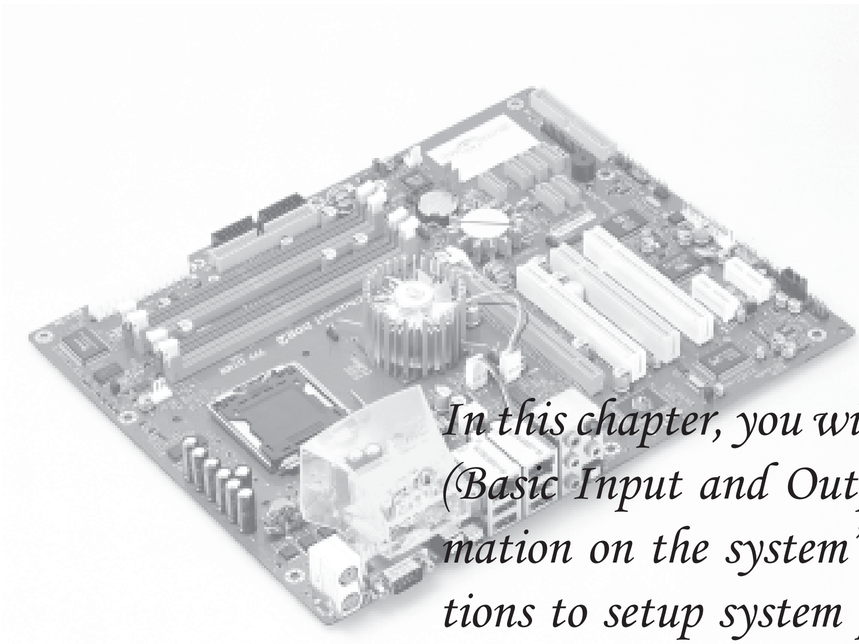


4-pin ATX power connector

Users please note that when installing 4-pin power cable, the latches of power cable and the ATX12 match perfectly.

2.9 Powering up

Turn on the power to the monitor and the computer. If necessary, format your hard disk drive and install an operating system.



In this chapter, you will learn how to adjust the BIOS (Basic Input and Output System). It provides information on the system's configuration status and options to setup system parameters.

Reference

3.1 Entering the BIOS Setup Menu

When you power on the system, BIOS enters the Power-On Self Test (POST) routines. POST is a series of built-in diagnostics performed by the BIOS. After the POST routines are completed, the following message appears:

Press DEL to enter SETUP

Pressing the delete key accesses the BIOS Setup Utility:

Phoenix-AwardBIOS CMOS Setup Utility:

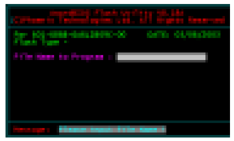
▶ Standard CMOS Features	▶ Frequency/Voltage Control
▶ Advanced BIOS Features	Load Performance Defaults
▶ Advanced Chipset Features	Load Optimized Defaults
▶ Integrated Peripherals	Set Supervisor Password
▶ Power Mangement Setup	Set User Password
▶ PnP/PCI Configurations	Save & Exit Setup
▶ PC Health Status	Exit Without Saving
Esc: Quit F9: Menu in BIOS F10: Save & Exit Setup	↑↓→← : Select Item
Time, Date , Hard Disk Type...	

3.2 Updating and Recovering the BIOS

A standard configuration has already been set in the Setup Utility. However, if you encounter a configuration error or you need a better performance. You could attempt to update or recover your system BIOS.

3.2-1 Using AWARD Flash to update your BIOS

1. If your motherboard has an item called Firmware Write Protect in Advanced BIOS features, disable it. (Firmware Write Protect prevents BIOS from being overwritten).
2. Create a bootable system disk. (Refer to Windows online help for information on creating a bootable system disk.)
3. Use the Award Flash Utility from the ECS support CD and download the last BIOS file for this motherboard from ECS web site (www.ecs.com.tw). Copy these files to the system diskette you created in step 2.
4. Turn off your computer and insert the system diskette in your computer's diskette drive. (You might need to run the Setup Utility and change the boot priority items on the Advanced BIOS Features Setup page, to force your computer to boot from the floppy diskette drive first.)
5. At the A:\ prompt, type the Flash Utility program name and press <Enter>. You see a screen similar to the following:



6. Type the filename of the new BIOS in the "File Name to Program" text box. Follow the onscreen directions to update the motherboard BIOS.
7. When the installation is complete, remove the floppy diskette from the diskette drive and restart your computer. If your motherboard has a Flash BIOS jumper, reset the jumper to protect the newly installed BIOS from being overwritten.

3.2-2 Using ECS Top-Hat Flash to recover your BIOS

The ECS Top-Hat Flash kit allow you to restore BIOS from ECS website (www.ecs.com.tw) or ECS support CD, in case you current BIOS on the motherboard might corrupt. Please follow the procedures below to recover your BIOS.

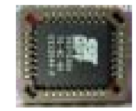
1. Please find the BIOS ROM located on your motherboard. (Figure A)
2. Find the cut edge corner on the Flash ROM. (Figure B)
3. Find the cute edge corner on the Top-Hat Flash. (Figure C)
4. Orient the cut edge Top-Hat Flash to BIOS ROM's and press the flash ROM into the lower socket of Top-Hat Flash. (Figure D & E)
5. Then, power on your computer.


Figure A


Figure B


Figure C


Figure D


Figure E

6. After the computer boots up, remove the Top-Hat Flash.
7. Download the BIOS file from ECS web site (www.ecs.com.tw) or ECS support CD and use Flash Utility to reflash the original Flash ROM.
8. You can choose either AWARD Flash utility in DOS mode or "ECSonic" in Windows to reflash the BIOS.

3.3 The Main Menu

The main menu of the Setup Utility displays a list of the options that are available. A highlight indicates which option is currently selected. Use the cursor arrow keys to move the highlight to other options. When an option is highlighted, execute the option by pressing <Enter>.

3.3-1 Standard CMOS Features

This option displays basic information about your system.

Phoenix-AwardBIOS CMOS Setup Utility
Standard CMOS Features

		Item Help
Date (mm:dd:yy)	Mon, May 17 2004	Menu Level ▶
Time (hh:mm:ss)	9 : 33 : 26	Change the day, month, year and century
▶ IDE Channel 0 Master		
▶ IDE Channel 0 Slave		
▶ IDE Channel 1 Master		
▶ IDE Channel 1 Slave		
Drive A	[1.44M, 3.5 in.]	
Floppy 3 Mode Support	[Disabled]	
Video	[EGA/VGA]	
Halt On	[All Errors]	
Base Memory	640K	
Extended Memory	65535K	
Total Memory	1024K	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Date and Time

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

▶IDE Devices [None]

Your computer has two IDE channels (Primary and Secondary) and each channel can be installed with one or two devices (Master and Slave). Use these items to configure each device on the IDE channel.

Press <Enter> to display the IDE submenu:

Phoenix-AwardBIOS CMOS Setup Utility
IDE Channel 0 Slave

		Item Help
IDE HDD Auto-Detection	[Press Enter]	Menu Level ▶▶
IDE Channel 0 Slave	[Auto]	To auto-detect the HDD's size, head... on this channel
Access Mode	[Auto]	
Capacity	0MB	
Cylinder	0	
Head	0	
Precomp	0	
Landing Zone	0	
Sector	0	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

IDE HDD Auto-Detection

Press <Enter> while this item is highlighted to prompt the Setup Utility to automatically detect and configure an IDE device on the IDE channel.

Note: If you are setting up a new hard disk drive that supports LBA mode, more than one line will appear in the parameter box. Choose that lists LBA for an LBA drive.

IDE Channel 0/1 Master/Slave

Leave this item at Auto to enable the system to automatically detect and configure IDE devices on the channel. If it fails to find a device, change the value to Manual and then manually configure the drive by entering the characteristics of the drive in the items described below.

Note: Before attempting to configure a hard disk drive, ensure that you have the configuration information supplied by the manufacturer of your hard drive. Incorrect settings can result in your system not recognizing the installed hard disk.

Access Mode

This item defines ways that can be used to access IDE hard disks such as LBA (Large Block Addressing). Leave this value at Auto and the system will automatically decide the fastest way to access the hard disk drive.

Press <Esc> to return to the Standard CMOS Features page.

Drive A [1.44M, 3.5in.]

These items define the characteristics of any diskette drive attached to the system. You can connect one or two diskette drives.

Floppy 3 Mode Support [Disabled]

Floppy 3 mode refers to a 3.5-inch diskette with a capacity of 1.2 MB. Floppy 3 mode is sometimes used in Japan.

Video [EGA/VGA]

Thsi item defines the video mode of the system. This motherboard has a built-in VGA graphics system; you must leave this item at the default value.

Halt On [All Errors]

This item defines the operation of the system POST (Power On Self Test) routine. You can use this item to select which types of errors in the POST are sufficient to halt the system.

Base Memory, Extended Memory and Total Memory

These items are automatically detected by the system at start up time. These are display-only fields. You cannot make chanages to these fields.

3.3-2 Advanced BIOS Features

This option defines advanced information about your system.

Phoenix-AwardBIOS CMOS Setup Utility
Advanced BIOS Features

		Item Help
▶ CPU Feature	[Press Enter]	Menu Level ▶
▶ Hard Disk Boot Priority	[Press Enter]	
CPU L3 Cache	[Enabled]	
Hyper-Threading Technology	[Enabled]	
Quick Power On Self Test	[Enabled]	
First Boot Device	[Floppy]	
Second Boot Device	[Hard Disk]	
Third Boot Device	[CDROM]	
Boot Other Device	[Enabled]	
Boot Up Floppy Seek	[Disabled]	
Boot Up NumLock Status	[On]	
Gate A20 Option	[Fast]	
Typematic Rate Setting	[Disabled]	
x Typematic Rate (Chars/Sec0	6	
x Typematic Delay (Msec)	250	
Security Option	[Setup]	
APIC Mode	[Enabled]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

▶ CPU Feature (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

Phoenix-AwardBIOS CMOS Setup Utility
CPU Feature

Delay Prior to Thermal	[16 Min]	Item Help
Thermal Management	[Thermal Monitor 1]	Menu Level ▶▶
TM2 Bus Ratio	[0X]	
TM2 Bus VID	[0.8375V]	
Limit CPUID MaxVal	[Disabled]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

Delay Prior to Thermal [16 Min]

Enables you to set the delay time before the CPU enters auto thermal mode.

Thermal Management [Thermal Monitor 1]

This item sets CPU's thermal control rule to protect CPU from overheat. This feature is only available when CPU supports Thermal Monitor 2.

TM2 Bus Ratio [0 X]

This item helps you to set the frequency (bus ratio) of the throttled performance that will be initiated when the on die sensor goes from not hot to hot. You may set the bus ration number from 0 to 255.

TM2 Bus VID [0.8375V]

This item helps you to set the voltage of the throttled performance that will be initiated when the on die sensor goes from not hot to hot.

Limit CPUID MaxVal [Disabled]

This item limits the CPUID maximum value. Enable this item to install WinNT. Leave this item at the default value for other OS.

Press <Esc> to return to the Advanced BIOS Features page.

▶Hard Disk Boot Priority (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

Phoenix-AwardBIOS CMOS Setup Utility
Hard Disk Boot Priority

1. Pri.Master:	Item Help
2. Pri.Slave:	Menu Level ▶▶
3. Sec. Master:	Use < ↑ > or < ↓ > to select a device, then press <+> to move it up, or <-> to move it down the list. Press <ESC> to exit this menu.
4. Sec. Slave:	
5. USBHDD0:	
6. USBHDD1:	
7. USBHDD2:	
8. Bootable Add-in Cards	

↑↓→← : Move PU/PD+/-/:Change Priority F10:Save ESC:Exit
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

CPU L3 Cache [Enabled]

Some high-end processors support L3. If the CPU do support L3, you may set this item to enable or disable. Leave this item at the default value for better performance.

Hyper-Threading Technology [Enabled]

This item is only available when the chipset supports Hyper-Threading and you are using a Hyper-Threading CPU.

Quick Power On Self Test [Enabled]

Enable this item to shorten the power on testing (POST) and have your system start up faster. You might like to enable this item after you are confident that your system hardware is operating smoothly.

First/Second/Third Boot Device [Floppy/Hard Disk/CDROM]

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

Boot Other Device [Enabled]

When enabled, the system searches all other possible locations for an operating system if it fails to find one in the devices specified under the First, Second, and Third boot devices.

Boot Up Floppy Seek [Disabled]

If this item is enabled, it checks the size of the floppy disk drives at start-up time. You don't need to enable this item unless you have a legacy diskete drive with 360K capacity.

Boot Up NumLock Status [On]

This item defines if the keyboard Num Lock key is active when your system is started.

Gate A20 Option [Fast]

This item defines how the system handles legacy software that was written for an earlier generation of processors. Leave this item at the default value.

Typematic Rate Setting [Disabled]

If this item is enabled, you can use the following two items to set the typematic rate and the typematic delay settings for your keyboard.

- **Typematic Rate (Chars/Sec):** Use this item to define how many characters per second are generated by a held-down key.
- **Typematic Delay (Msec):** Use this item to define how many milliseconds must elapse before a held-down key begins generating repeat characters

.

Security Option [Setup]

If you have installed password protection, this item defines if the password is required at system start up, or if it is only required when a user tries to enter the Setup Utility.

APIC Mode [Enabled]

This item allows you to enable or disable the APIC (Advanced Programmable Interrupt Controller) mode. APIC provides symmetric multi-processing (SMP) for systems, allowing support for up to 60 processors.

OS Select For DRAM > 64MB [Non-OS2]

This item is only required if you have installed more than 64 MB of memory and you are running the OS/2 operating system. Otherwise, leave this item at the default.

HDD S.M.A.R.T Capability [Disabled]

The S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) system is a diagnostics technology that monitors and predicts device performance S.M.A.R.T. software resides on both the disk drive and the host computer.

The disk drive software monitors the internal performance of the motors, media, heads and electronics of the drive. The host software monitors the overall reliability status of the drive. If a device failure is predicted, the host software, through the Client WORKS S.M.A.R.T applet, warns the user of the impending condition and advises appropriate action to protect the data.

Report No FDD For WIN 95 [Yes]

Set this item to the default if you are running a system with no floppy drive and using Windows 95; this ensures compatibility with the Windows 95 logo certification.

Full Screen LOGO Show [Enabled]

When enabled, this will show a full screen company logo on the boot up screen. Select disabled when you want to show POST messages during boot up.

Small Logo (EPA) Show [Disabled]

Enables or disables the display of the EPA logo during boot.

3.3-3 Advanced Chipset Features

These items define critical timing parameters of the mainboard. You should leave the items on this page at their default values unless you are very familiar with the technical specifications of your system hardware. If you change the values incorrectly, this may cause fatal errors or instability into your system.

```
Phoenix-AwardBIOS CMOS Setup Utility
Advanced Chipset Features

  DRAM Timing Selectable       [By SPD]        Item Help
  CAS Latency Time             [Auto]
  DRAM RAS# to CAS# Delay      [Auto]          Menu Level   ►►
  DRAM RAS# Precharge          [Auto]
  Precharge Delay (tRAS)       [auto]
  System Memory Frequency      [Auto]
  System BIOS Cacheable        [Disabled]
  Video BIOS Cacheable         [Disabled]
 ►PCI Express Root Port Func   [Press Enter]
  DDR Voltage                  [1.80V]
  DRAM Data Integrity Mode     [Auto]

↑↓→←: Move   Enter: Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1: General Help
   F5:Previous Values      F6:Fail-Safe Defaults      F7:Optimized Defaults
```

DRAM Timing Selectable [By SPD]

The value in this field depends on performance parameters of the installed memory chips (DRAM). Do not change the value from the factory setting unless you install new memory that has a different performance rating than the original DRAMs.

CAS Latency Time [Auto]

When synchronous DRAM is installed, the number of clock cycles of CAS latency depends on the DRAM timing. Do not reset this field from the default value specified by the system designer.

DRAM RAS# to CAS# Delay [Auto]

This field lets you insert a timing delay between the CAS and RAS strobe signals, used when DRAM is written to, read from, or refreshed. Disabled gives faster performance; and Enabled gives more stable performance.

DRAM RAS# Precharge [Auto]

Select the number of CPU clocks allocated for the Row Address Strobe (RAS#) signal to accumulate its charge before the DRAM is refreshed. If insufficient time is allowed, refresh may be incomplete and data lost.

Precharge Delay (tRAS) [Auto]

The precharge time is the number of cycles it takes for DRAM to accumulate its charge before refresh.

System Memory Frequency [Auto]

You can adjust the system memory frequency to enable the best performance for the system.

System BIOS Cacheable [Disabled]

This item allows the system to be cached in memory for faster execution. Enable this item for better performance.

Video BIOS Cacheable [Disabled]

This item allows the video BIOS to be cached in memory for faster execution. Enable these items for better performance.

▶ PCI Express Root Port Func (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

```
Phoenix-AwardBIOS CMOS Setup Utility
PCI Express Root Port Func

PCI Express Port 1        [Auto]        Item Help
PCI Express Port 2        [Auto]
                                        Menu Level  ▶▶

↑↓→← : Move   PU/PD+/-/:Change Priority   F10:Save   ESC:Exit
F5:Previous Values   F6:Fail-Safe Defaults   F7:Optimized Defaults
```

PCI Express Port 1~2 [Auto]

These items enable PCI transmission to a higher level.

Press <Esc> to return to the Advanced Chipset Features page.

DDR Voltage [1.80V]

This item allows you to set the DDR SDRAM operating voltage.

DRAM Data Integrity Mode [Auto]

This item enables or disables the ECC (Error Correction Code) error checking on the DRAM memory.

3.3-4 Integrated Peripherals

These options display items that define the operation of peripheral components on the system's input/output ports.

Phoenix-AwardBIOS CMOS Setup Utility
Integrated Peripherals

▶ OnChip IDE Device	[Press Enter]	Item Help
▶ Onboard Device	[Press Enter]	Menu Level ▶▶
▶ SuperIO Device	[Press Enter]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

▶ OnChip IDE Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

Phoenix-AwardBIOS CMOS Setup Utility
OnChip IDE Device

IDE HDD Block Mode	[Enabled]	Item Help
ATA 66/100 Cable Msg	[Enabled]	
IDE DMA transfer access	[Enabled]	Menu Level ▶▶
On-Chip Primary PCI IDE	[Enabled]	
IDE Primary Master PIO	[Auto]	If your IDE hard drive supports block mode select Enabled for automatic detection of the optimal number of block read/writes per sector the drive can support
IDE Primary Slave PIO	[Auto]	
IDE Primary Master UDMA	[Auto]	
IDE Primary Slave UDMA	[Auto]	
On-Chip Secondary PCI IDE	[Enabled]	
IDE Secondary Master PIO	[Auto]	
IDE Secondary Slave PIO	[Auto]	
IDE Secondary Master UDMA	[Auto]	
IDE Secondary Slave UDMA	[Auto]	
*** On-Chip Serial ATA Setting ***		
On-Chip Serial ATA	[Disabled]	
PATA IDE Mode	[Primary]	
SATA Port	P1, P3 is Secondary	

↑↓→← : Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

IDE HDD Block Mode [Enabled]

Enable this field if your IDE hard drive supports block mode. Block mode enables BIOS to automatically detect the optimal number of block read and writes per sector that the drive can support and improves the speed of access to IDE devices.

ATA 66/100 Cable Msg [Enabled]

This item enables or disables the display of the ATA 66/100 Cable MSG.

IDE DMA transfer access [Enabled]

This item allows you to enabled the transfer access of the IDE DMA.

On-Chip Primary/Secondary PCI IDE [Enabled]

The integrated peripheral controller contains an IDE interface with support for two IDE channels. Select Enabled to activate each channel separately.

IDE Primary/Secondary Master/Slave PIO [Auto]

Each IDE channel supports a master device and a slave device. These four items let you assign which kind of PIO (Programmed Input/Output) is used by IDE devices. Choose Auto to let the system auto detect which PIO mode is best, or select a PIO mode from 0-4.

IDE Primary/Secondary Master/Slave UDMA [Auto]

Each IDE channel supports a master device and a slave device. This motherboard supports UltraDMA technology, which provides faster access to IDE devices.

If you install a device that supports UltraDMA, change the appropriate item on this list to Auto. You may have to install the UltraDMA driver supplied with this motherboard in order to use an UltraDMA device.

On-Chip Serial ATA [Disabled]

When set to Disabled, then disabled SATA controller; when set to Auto, then will be automatically arranged by BIOS; when set to Combined Mode, then PATA and SATA are combined. Maximum of 2 IDE drives in each channel. When set to Enhanced Mode, then enable both SATA and PATA. Maximum of 6 IDE drives are supported. When set to SATA only, then SATA is operating in legacy mode.

PATA IDE Mode [Primary]

This item is used to set the PATA IDE mode. When set to Primary, P1 and P3 are Secondary; on the other hand, when set to Secondary, P0 and P2 are Primary.

Press <Esc> to return to the Integrated Peripherals page.

▶ Onboard Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

Phoenix-AwardBIOS CMOS Setup Utility
Onboard Device

		Item Help
USB Controller	[Enabled]	Menu Level ▶▶
USB 2.0 Controller	[Enabled]	
USB Keyboard Support	[Enabled]	
USB Mouse Support	[Enabled]	
Azalia/AC97 Audio Select	[Auto]	
Onboard LAN Device	[Enabled]	
Onboard LAN Boot ROM	[Disabled]	
Onboard SATA Device	[Enabled]	
Onboard 1394 Device	[Enabled]	
Onboard GigaLAN Device	[Enabled]	
Onboard GigaLAN Boot ROM	[Disabled]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

USB Controller [Enabled]

Enable this item if you plan to use the Universal Serial Bus ports on this motherboard.

USB 2.0 Controller [Enabled]

Enable this item if want to use the USB 2.0 controller.

USB Keyboard Support [Enabled]

Enable this item if you plan to use a keyboard connected through the USB port in a legacy operating system (such as DOS) that does not support Plug and Play.

USB Mouse Support [Enabled]

Enable this item if you plan to use a USB mouse.

Azalia/AC97 Audio Select [Auto]

Enables and disables the onboard audio chip. Disable this item if you are going to install a PCI audio add-on card.

Onboard LAN Device [Enabled]

Enables and disables the onboard LAN..

Onboard LAN Boot ROM [Disabled]

Use this item to enable and disable the booting from the onboard LAN or a network add-in card with a remote boot ROM installed.

Onboard SATA Device [Enabled]

Enable this item if you plan to use the serial ATA device.

Onboard 1394 Device [Enabled]

Enable this item if you plan to use the 1394 device.

Onboard GigaLAN Device [Enabled]

This option allows you enable or disable the onboard GigaLan device.

Onboard GigaLAN Boot ROM [Enabled]

Use this item to enable and disable the booting from the onboard LAN or a network add-in card with a remote boot ROM installed.

Press <Esc> to return to the Integrated Peripherals page.

▶ SuperIO Device (Press Enter)

Scroll to this item and press <Enter> to view the following screen:

Phoenix-AwardBIOS CMOS Setup Utility
SuperIO Device

POWER ON Function (S3)	[Hot KEY]	Item Help
KB Power ON Password (S3)	[Enter]	Menu Level ▶▶
Hot Key Power ON (S3)	[Ctrl-F12]	
Onboard FDC Controller	[Enabled]	
Onboard Serial Port1	[3F8/IRQ4]	
UART 2 Mode Controller	[Disabled]	
UART 2 Select	[Normal]	
RxD, TxD Active	[Hi, Lo]	
IR Transmission Delay	[Enabled]	
UR2 Duplex Mode	[Half]	
Use IR Pins	[IR-Rx2Tx2]	
Onboard Parallel Port	[378/IRQ7]	
Parallel Port Mode	[SPP]	
ECP Mode Use DMA	[3]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

POWER ON Function (S3) [Hot KEY]

This feature allows you to set the method by which your system can be turned on.

KB Power ON Password (S3) [Enter]

When the POWER ON Function is set to Password, use this item to set the password.

Hot Key Poewr ON (S3) [Ctrl-F12]

When the POWER ON Function is set to Hot KEY, use this item to set the hot key combination that turns on the system.

Onboard FDC Controller [Enabled]

Select Enabled if your system has a floppy disk controller (FDC) installed on the system board and you wish to use it. If you install an add-in FDC or the system has no floppy drive, select Disabled in this field.

Onboard Serial Port 1 [3F8/IRQ4]

This option is used to assign the I/O address and interrupt request (IRQ) for onboard serial port 1 (COM1).

UART 2 Mode Controller [Disabled]

When enabled, this item activates the onboard infrared feature and sets the second serial UART to support the infrared module connector on the mainboard. Enabling this field disables the onboard COM2 connector.

UART 2 Select [Normal]

This field is available if the Onboard Serial Port 2 field is set to any option but “Disabled.” UART Mode Select enables you to select the infrared communication protocol—Normal, IrDA, ASKIR or SCR

The UART mode setting depends on which type of infrared module is used in the system. When set to “SCR,” “ASKIR” or “IrDA,” the UART mode is used to support the infrared module connected on the mainboard. If this option is not set to “Normal,” a device connected to the COM2 port will no longer work.

RxD, TxD Active [Hi, Lo]

This feature enables you to set the IR reception/transmission polarity as High or Low.

IR Transmission Delay [Enabled]

This field enables you to set the whether the IR transmission rate will be delayed while converting to receiving mode.

UR2 Duplex Mode [Half]

This field is available when UART 2 Mode is set to either ASKIR or IrDA. This item enables you to determine the infrared function of the onboard infrared chip. The options are Full and Half (default).

Full-duplex means that you can transmit and send information simultaneously. Half-duplex is the transmission of data in both directions, but only one direction at a time.

Use IR Pins [IR-Rx2Tx2]

Please consult your IR peripheral documentation to select the correct setting of the TxD and RxD signals.

Onboard Parallel Port (378/IRQ7)

This option is used to assign the I/O address and interrupt request (IRQ) for the onboard parallel port.

Parallel Port Mode (ECP)

Enables you to set the data transfer protocol for your parallel port. There are four options: SPP (Standard Parallel Port), EPP (Enhanced Parallel Port), ECP (Extended Capabilities Port) and ECP+EPP.

SPP allows data output only. Extended Capabilities Port (ECP) and Enhanced Parallel Port (EPP) are bi-directional modes, allowing both data input and output. ECP and EPP modes are only supported with EPP- and ECP-aware peripherals.

ECP Mode Use DMA (3)

When the onboard parallel port is set to ECP mode, the parallel port can use DMA 3 or DMA 1.

Press <Esc> to return to the Integrated Peripherals page.

3.3-5 Power Management Setup

This option lets you control system power management. The system has various power-saving modes including powering down the hard disk, turning off the video, suspending to RAM, and software power down that allows the system to be automatically resumed by certain events.

Phoenix-AwardBIOS CMOS Setup Utility
Power Management Setup

ACPI Suspend Type	[S3(STR)]	Item Help
Run VGABIOS if S3 Resume	[Auto]	
Video Off Method	[DPMS]	Menu Level ▶
Video Off In Suspend	[Yes]	
Suspend Type	[Stop Grant]	
MODEM Use IRQ	[3]	
Suspend Mode	[Disabled]	
HDD Power Down	[Disabled]	
Soft-off by PWR-BTTN	[Instant-off]	
Resume by PCI PME	[Enabled]	
Resume by Ring	[Disabled]	
Resume by USB (S3)	[Disabled]	
Resume by Alarm	[Disabled]	
*Date (of Month) Alarm	0	
*Time (hh:mm:ss) Alarm	0:0:0	
Reload Global Timer Events		
Primary IDE 0	[Disabled]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

ACPI Suspend Type [S3(STR)]

Use this item to define how your system suspends. In the default, S3 (STR), the suspend mode is a suspend to RAM, i.e., the system shuts down with the exception of a refresh current to the system memory. If you select S1 (POS), the suspend mode is equivalent to a software power down.

Run VGABIOS if S3 Resume [Auto]

This item allows the system to initialize the VGA BIOS from S3 (Suspend to RAM) sleep state.

Video Off Method [DPMS]

This item defines how the video is powered down to save power. This item is set to DPMS (Display Power Management Software) by default.

Video Off In Suspend [Yes]

This option defines if the video is powered down when the system is put into suspend mode.

Suspend Type [Stop Grant]

If this item is set to the default Stop Grant, the CPU will go into Idle Mode during power saving mode.

MODEM Use IRQ [3]

If you want an incoming call on a modem to automatically resume the system from a power-saving mode, use this item to specify the interrupt request line (IRQ) that is used by the modem. You might have to connect the fax/modem to motherboard Wake On Modem connector for this feature to work.

Suspend Mode [Disabled]

The CPU clock will be stopped and the video signal will be suspended if no Power Management events occur for a specified length of time. Full power function will return when a Power Management event is detected. Options are from 1 Min to 1 Hour and Disable.

HDD Power Down [Disabled]

The IDE hard drive will spin down if it is not accessed within a specified length of time. Options are from 1 Min to 15 Min and Disable.

Soft-Off by PWR-BTTN [Instant-Off]

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

Resume by PCI PME [Enabled]

This item specifies whether the system will be awakened from power saving modes when activity or input signal of the specified hardware peripheral or component is detected.

Resume by Ring [Disabled]

An input signal on the serial Ring Indicator (RI) line (in other words, an incoming call on the modem) awakens the system from a soft off state.

Resume by USB(S3) [Disabled]

This option allows the activity of the USB devices (keyboard and mouse) to wake-up the system from S3 sleep state.

Resume by Alarm [Disabled]

When set to Enabled, additional fields become available and you can set the date (day of the month), hour, minute and second to turn on your system. When set to 0 (zero) for the day of the month, the alarm will power on your system every day at the specified time.

****Reload Global Timer Events****

Global Timer (power management) events are I/O events whose occurrence can prevent the system from entering a power saving mode or can awaken the system from such a mode. In effect, the system remains alert for anything that occurs to a device that is configured as Enabled, even when the system is in a power-down mode.

Primary IDE0/1 [Disabled]

When these items are enabled, the system will restart the power-saving timeout counters when any activity is detected on any of the drives or devices on the primary or secondary IDE channels.

Secondary IDE0/1 [Disabled]

When this item is enabled, the system will restart the power-saving timeout counters when any activity is detected on the floppy disk drive, serial ports, or the parallel port.

Power on After Power-fail [Off]

This item enables your computer to automatically restart or return to its last operating.

3.3-6 PNP/PCI Configurations

These options configure how PnP (Plug and Play) and PCI expansion cards operate in your system. Both the the ISA and PCI buses on the motherboard use system IRQs (Interrup ReQuests) and DMAs (Direct Memory Access). You must set up the IRQ and DMA assignments correctly through the PnP/PCI Configurations Setup utility for the motherboard to work properly. Selecting PnP/PCI Configurations on the main program screen displays this menu:

```
Phoenix-AwardBIOS CMOS Setup Utility
PnP/PCI Configurations

  Init Display First          [PCI Slot]        Item Help
  Reset Configuration Data    [Disabled]
                                                Menu Level  ►►
  Resources Controlled By     [Auto(ESCD)]
x IRQ Resources               Press Enter

  PCI/VGA Palette Snoop       [Disabled]
  Assign IRQ For USB          [Enabled]
  INT Pin 1 Assignment        [Auto]
  INT Pin 2 Assignment        [Auto]
  INT Pin 3 Assignment        [Auto]
  INT Pin 4 Assignment        [Auto]
  INT Pin 5 Assignment        [Auto]
  INT Pin 6 Assignment        [Auto]
  INT Pin 7 Assignment        [Auto]
  INT Pin 8 Assignment        [Auto]

↑↓→←: Move   Enter: Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1: General Help
   F5:Previous Values      F6:Fail-Safe Defaults      F7:Optimized Defaults
```

Init Display First [PCI Slot]

Use this item to specify the initial display to be the PCI slot or the graphics chip integrated on the motherboard.

Reset Configuration Data [Disabled]

If your enable this item and restart the system, any Plug and Play configuration data stored in the BIOS Setup is cleared from memory.

Resources Controlled By [Auto (ESCD)]

You should leave this item at the default Auto (ESCD). Under this setting, the system dynamically allocates resources to Plug and Play devices as they are required. If you can't get a legacy ISA expension card to work properly, you might be able to solve the problem by changing this item to Manual, and them opening up the IRQ Resources submenu.

PCI/VGA Palette Snoop [Disabled]

This item is designed to overcome problem that can be caused by some non-standard VGA cards. This board includes a built-in VGA system that does not required palette snooping so you must leave this item disabled.

Assign IRQ For USB [Enabled]

Names the interrupt request (IRQ) line assigned to the USB on your system. Activity of the selected IRQ always awakens the system.

INT Pin 1-8 Assignment [Auto]

Identify the interrupt request (IRQ) line assigned to the USB on your system. Activity of the selected IRQ always awakens the system.

3.3-7 PC Health Status

On motherboards that support hardware monitoring, this item lets you

```
Phoenix-AwardBIOS CMOS Setup Utility
PC Health Status

  Case Open Warning            [Disabled]      Item Help
  Case has been                CLOSING
  Shutdown Temperature         [Disabled]      Menu Level ►
  Current System Temp
  Current CPU1 Temperature
  NBFAN1
  CPU FAN
  CAS FAN
  CPU Vcore
   1.5V
   3.3V
  Smart CPUFan Function        [Disabled]
X CPUFan Tolerance Value       5

↑↓→← : Move   Enter: Select   +/-/PU/PD:Value   F10:Save   ESC:Exit   F1: General Help
      F5:Previous Values      F6:Fail-Safe Defaults      F7:Optimized Defaults
```

Case Open Warning [Disabled]

This item enables or disables the warning if the case is opened up, and the item below indicates the current the status of the case.

Shutdown Temperature [Disabled]

Enables you to set the maximum temperature the system can reach before powering down.

System Component Characteristics

These fields provide you with information about the systems current operating status. You cannot make changes to these fields.

- **Current System Temp**
- **Current CPU1 Temperature**
- **NB FAN Speed**
- **CPU FAN SPeed**
- **CAS FAN Speed**
- **CPU Vcore**
- **1.5V**
- **3.3V**

Smart CPUFan Function [Disabled]

This item enables users to set to which Celsius degree when the Smart Fan2 start functioning. The default value is 40°C to 104°C.

CPUFan Tolerance Value [5]

This item helps you to adjust the frequency of Smart Fan.

3.3-8 Frequency/Voltage Control

This item enables you to set the clock speed and system bus for your system. The clock speed and system bus are determined by the kind of processor you have installed in your system.

Phoenix-AwardBIOS CMOS Setup Utility
Frequency/Voltage Control

			Item Help
	CPU Clock Ratio	[8X]	Menu Level ▶
	AGP Voltage	[1.500V]	
	CPU Voltage Control	[By Auto]	
X	CPU Core Voltage	1.1125V	
	Auto Detect PCI Clk	[Enabled]	
	Spread Spectrum	[Disabled]	
	PCI Clock	[Async]	
	CPU Clock	[200MHz]	
	Async PCIEX Clock	[CPU Clock/2]	

↑↓→←: Move Enter: Select +/-/PU/PD:Value F10:Save ESC:Exit F1: General Help
F5:Previous Values F6:Fail-Safe Defaults F7:Optimized Defaults

CPU Clock Ratio [8X]

Enable you to set the CPU clock. The CPU colck ratio times the CPU Host/ PCI Clock should equal the core speed of the installed processor. (For unlock Ratio CPU only.)

Example:	CPU Clock Ratio	8
	CPU Clock	X200
	Installed CPU Clock Speed	1600 MHz

AGP Voltage [1.500 V]

This item regulates the voltage delivered to the AGP.

CPU Voltage Control [By Auto]

If you are manually configuring the CPU clock, use this item to set the CPU voltage for more stability. But we recommend the users keep this item to By Auto.

Auto Detect PCI Clk [Enabled]

When this item is enabled, BIOS will disable the clock signal of free PCI slots.

Spread Spectrum [Disabled]

If you enable spread spectrum, it can significantly reduce the EMI (Electro-Magnetic Interference) generated by the system.

PCI Clock [Asyn]

This item correlates to CPU Clock item; when set to Asyn, PCI Clock and CPU Clock will not operate at the same clock; when set to Sync, PCI Clock and CPU Clock will operate at the same clock.

CPU Clock[200MHz]

This item allows you to adjust the CPU clock to 200MHz. You can key-in the numbers within the range to make a precise and ideal adjustment.

Async PCIE Clock [CPU Clock/2]

This item correlates to CPU Clock item; when set to Asyn, PCIE Clock and CPU Clock will not operate at the same clock; when set to Sync, PCI Clock and CPU Clock will operate at the same clock.

3.3-9 Load Performance Defaults

If you select this item and press Enter a dialog box will appear. If you select [OK], and then Enter, the Setup Utility loads a set of performance default values. These default settings are quite demanding and your system might not function properly if you are using slower CPU, memory, or other low-performance components.

Warning: To load Performance settings may make your system become unstable or unbootable.

3.3-10 Load Optimized Defaults

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. When your hardware doesn't support the "Optimized Defaults", fatal system errors or instability may occur. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

Users please remain the factory BIOS default setting of "Load optimized Defaults" when install Operation System onto your system.

3.3-11 Set Supervisor/User Password

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

ENTER PASSWORD

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection.

To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

PASSWORD DISABLED

If you have selected "**System**" in "Security Option" of "BIOS Features Setup" menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup.

If you have selected "**Setup**" at "Security Option" from "BIOS Features Setup" menu, you will be prompted for the password only when you enter BIOS Setup.

Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

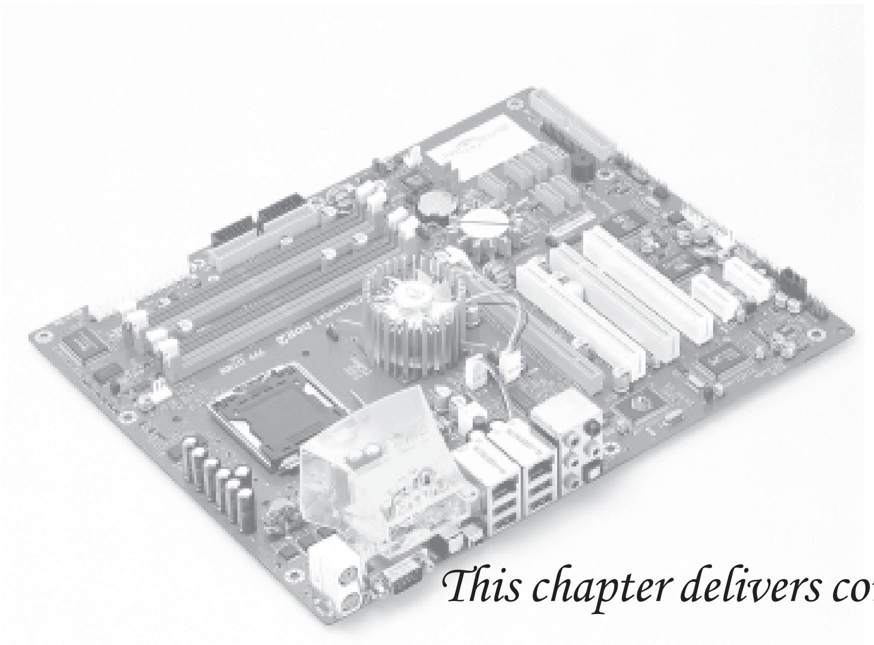
3.3-12 Save & Exit Setup

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu.

3.3-13 Exit Without Saving

Highlight this item and press <Enter> to discard any changes that you have made in the Setup Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

Note: If you have made settings that you do not want to save, use the "Exit Without Saving" item and press <Y> to discard any changes you have made.



This chapter delivers contents of the ECS support CD.

Reference

4.1 Software CD Information

The support software CD-ROM that is included in the motherboard package contains all the drivers and utility programs needed to properly run the bundled products. Below you can find a brief description of each software program, and the location for your motherboard version. More information on some programs is available in a README file, located in the same directory as the software.

Note: Never try to install software from a folder that is not specified for use with your motherboard.

4.2 Running the Software CD

To begin using the software CD, simply insert the CD into your CD-ROM drive. The CD automatically display the multimedia if auto run is enable in your computer.



4.3 Setup Tab

The setup tab shows three buttons - **Setup**, **Browse CD**, **Exit**.

Setup button: Click the **Setup** button to run the software installation program. Select from the menu which software you want to install.

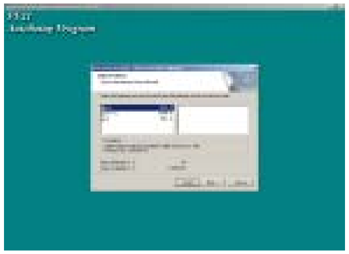
1. *Click* ***Setup****. The installation program begins:*



Note: The following screens are examples only. The screens and driver lists will be different according to the motherboard you are installing.

The motherboard identification is located in the upper left-hand corner.

2. *Click* **Next**. *The following screen appears:*



3. *Follow the instructions on the screen to install the items.*

   Drivers and software are automatically installed in sequence. Follow the onscreen instructions, confirm commands and allow the computer to restart a few times to complete the installation.

Browse CD button: The Browse CD button is the standard Windows command that allows you to open Windows Explorer and show the contents of the support CD.

Exit button: The **Exit** button closes the Auto Setup window.

4.4 Application Tab

Lists the software utilities that are available on the CD.

4.5 Read Me Tab

Displays the path for all software and drivers available on the CD.

4.6 Software Utilities Introduction

AWARD Flash Memory Utility

This utility lets you erase the system BIOS stored on a Flash Memory chip on the motherboard, and lets you copy an updated version of the BIOS to the chip. Proceed with caution when using this program. If you erase the current BIOS and fail to write a new BIOS, or write a new BIOS that is incorrect, your system will malfunction. Refer to Chapter 3 "Using BIOS" for more information.

WinFlash Utility

The AWARD WinFlash utility is a Windows version of the DOS Award BIOS flash writer utility. The utility enables you to flash the system BIOS stored on a Flash Memory chip on the motherboard while in a Windows environment. This utility is currently available for WINXP\ME\2000\98SE. To install the WinFlash utility, rin WINFLASH.EXE from the following directory: \UTILITY\WINFLASH

I'm InTouch

I'm InTouch remote access software allows you to login and work on your far-away computer, just as if you were sitting behind it! Run programs, transfer files, manage e-mail, contacts and calendar events. With I'm InTouch, you always have access to your PC and the important information and programs that you need.

MediaRing Talk - Telephony Software

Go to \UTILITY\MEDIARING EZ NET and run SETUP 331.EXE to install the MediaRing Talk voice modem software for the built-in modem.

WinCinema

- **WinDVD Creator Plus**

WinDVD Creator Plus is designed for people who want to make their own DVDs but who don't want to learn complicated programs. By taking you through 4 DVD-making steps, WinDVD Creator Plus walks you through capturing video, editing it, adding titles, transitions, effects, music, DVD menus and finally burning the finished product. User also can direct-burn to DVD when DVD burner is available.

- **WinDVD**

WinDVD is the world's most popular DVD player and supports over 30 new features and enhancements such as improved picture quality, easier-to-use Time-Stretching, MP3 playback, and Video Desktop - which lets you watch movies under your desktop icons while you work or check email.

- **WinRIP**

WinRIP lets you record, store, organize, and enjoy you music collection - on your PC, CD player, and portable player. Organize your Music Galleryand create your own playlists. You can switch between simple Player mode or full-featured Jukebox mode.

Pro Magic Plus

This amazing software not only provides users with convenient and instant restoration of your computer, but also restores within seconds important data back to the preferred state at a specific point in time. Pro Magic also combines several other functions including anti-virus, backup, uninstall software and multi-booting to satisfy all your system protection needs.

DPU (Data Process Utility)

Specially designed for file protection, security and management this DPU or data processing utility insures the safety of important data through complete file restoration, eliminating file damage even in case of improper operation. User can freely edit original files after a set restore time point. The DPU can even restore even deleted files.

Adobe Reader

This item install the Adobe Acrobat Reader. The Acrobat Reader software is for viewing files saved in Portable Document Format (PDF).

Smart LAN

The motherboard support Marvell Virtual Cable Tester (VCT) technology. It enables end users to remotely diagnose the quality and characteristics of the attached cable. With this feature it is possible to detect and report potential cabling issues such as cable opens, cable shorts, and impedance mismatches. The distance of the fault can be reported within one meter.

Show Shifter

ShowShifter, the award winning software, combines viewing TV, video, CD, MP3 and digital pictures into one easy to use application. With a little help from Showshifter your PC will be the ultimate home media center.

Résumé des caractéristiques

CPU	• Socket LGA775 pour processeur Intel Pentium4/Celeron • FSB 1066/800 MHz (Horloge de noyau de 266/200MHz) • Prise en charge de la Technologie Hyper-Threading
Chipset	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Mémoire	• Architecture mémoire DDR double canal • 4 x sockets DIMM DDR2 240 broches prenant en charge jusqu'à 4 Go • Prend en charge les DDR2 533/400 • DIMMs DDR de 1,8V sans tampon, Non-ECC
Options d'extension	• 1 x PCI Express x16 • 2 x PCI Express x1 • 3 x logements PCI
Stockage	• Pris en charge par ICH6R - 2 x périphériques Ultra DMA100/66 - 4 x périphériques SATA - Configuration RAID 0, RAID 1 • Pris en charge par SiS180 - 2 x périphériques Ultra DMA133/100/66 - 2 x périphériques SATA - Configuration RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Contrôleur VIA VT6307 IEEE1394a • Prend en charge 2 x ports IEEE1394a
Audio	• CODEC audio 8-canaux CMI9880 • Conforme aux spécifications Intel Azalia
LAN Double	• Contrôleur LAN Gigabit Marvel 88E8001 • Contrôleur Fast Ethernet 10/100 Mbps Realtek8100C
E/S du panneau arrière	• 1 x connecteur de clavier PS/2 • 1 x connecteur souris PS/2 • 4 x ports USB • 2 x connecteurs LAN RJ45 • 1 x port Série (COM1) • 1 x sortie SPDIF numérique • 1 x entrée SPDIF numérique • Connecteurs Sortie Ligne/Entrée Ligne/Microphone
Caractéristiques du BIOS	• Award BIOS avec ROM Flash de 4Mb • Prend en charge Plug & Play 1.0A, APM 1.2, Multi Boot, DMI • Prend en charge les spécifications 1.0B révision ACPI
E/S interne	• 1 x Connecteur d'alimentation ATX 24 broches & Connecteur 12 V 4 broches

	• 1 x connecteur de lecteur de disquette- prenant en charge 360K ~ 2,88M octets, 3 Lecteurs de disquettes Modes ou LS120 • 2 x connecteurs IDE • 6 x connecteurs ATA Série • 2 x embases USB 2.0 supportant 4 ports USB supplémentaires • 1 x embase 1394a • 1 x embase SMBus • 1 x embase de commutateur/LED de panneau avant • 1 x embase audio de panneau avant • 1 x embase LPT • 1 x embase CHS1 • 1 x embase SMI1 • Embase entrée CD • Connecteurs CPUFAN/NB_FAN/SYSFAN
Facteur de Forme	• Taille ATX • 305mm x 244mm

Zusammenfassung der Merkmale

CPU	• LGA775 Sockel für Intel Pentium4/Celeron Prozessor • FSB 1066/800 MHz (266/200MHz Core-Takt) • Unterstützt Hyper-Threading Technologie
Chipsatz	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Arbeitsspeicher	• Dual-Kanal DDR Speicherarchitektur • 4 x 240-Pin DDR2 DIMM Sockel, unterstützt bis zu 4 GB • Unterstützt DDR2 533/400 • Unterstützt Nicht-ECC, ungepufferte 1,8V DDR DIMMs
Erweiter-ungsmöglichkeiten	• 1 x PCI Express x16 • 2 x PCI Express x1 • 3 x PCI Steckplätze
Speicher	• Unterstützt durch einen ICH6R - 2 x Ultra DMA100/66 Geräte - 4 x SATA Geräte -RAID 0, RAID 1 Konfiguration • Unterstützt durch einen SiS180 -2 x Ultra DMA133/100/66 Geräte -2 x SATA Geräte -RAID 0, RAID 1, RAID 0+1 Konfiguration

IEEE 1394a	• VIA VT6307 IEEE1394a Controller • Unterstützt 2 x IEEE1394a Anschlüsse
Audio	• CMI9880 8-Kanal Audio CODEC • Entspricht Intel Azalia Spezifikation
Dual LAN	• Marvel 88E8001 Gigabit LAN Controller • Realtek8100C 10/100 Mbps Fast Ethernet Controller
Rear panel I/O	• 1 x PS/2 Tastaturanschluss • 1 x PS/2 Mausanschluss • 4 x USB Anschlüsse • 2 x RJ45 LAN Anschlüsse • 1 x Seriellanschluss (COM1) • 1 x Digital SPDIF Ausgang • 1 x Digital SPDIF Eingang • Line-out/Line-in/Microphone in Anschlüsse
BIOS Merkmale	• Award BIOS mit 4Mb Flash ROM • Unterstützt Plug und Play 1.0A, APM 1.2, Multi Boot, DMI • Unterstützt ACPI Revision 1.0B Spezifikation
Internes I/O	• 1 x 24-Pin ATX Netzteilanschluss & 4-Pin 12 V Anschluss

	• 1 x Floppylaufwerkanschluss, unterstützt 360K ~ 2.88M Bytes, 3 Modus Festplatten oder LS120 • 2 x IDE Anschlüsse • 6 x Seriell ATA Anschluss • 2 x USB 2.0 Anschluss, unterstützt zusätzlich 4 USB Anschluss • 1 x 1394a Anschluss • 1 x SMBus Anschluss • 1 x Schalter in der Frontabdeckung/LED-Anschluss • 1 x Audioanschluss in der Frontabdeckung • 1 x LPT Anschluss • 1 x CHS1 Anschluss • 1 x SMI1 Anschluss • CD-Einganganschluss • CPUFAN/NB_FAN/SYSFAN Anschlüsse
Formfaktor	• ATX-Größe • 305mm x 244mm

Indice delle caratteristiche

CPU	• LGA775 Socket per processore Intel Pentium4/Celeron • FSB 1066/800 MHz (Core clock a 266/200 Mhz) • Supportp di Tecnologia Hyper-Threadig
Chipset	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memoria	• Dual-channel DDR memory architecture • 4 x 240-pin DDR2 DIMM socket che supportano sino a 4 GB • Supporta DDR2 533/400 • Supporta Non-ECC, unbuffered 1,8V DDR DIMMs
Opzioni d'espansione	• 1 x PCI Express x16 • 2 x PCI Express x1 • 3 x slots PCI
Deposito	• Supportato da ICH6R - 2 x dispositivi Ultra DMA100/66 - 4 x dispositivi SATA -configurazione RAID 0, RAID 1 • Supportato da SiS180 - 2 x dispositivi Ultra DMA133/100/66 - 2 x dispositivi SATA -configurazione RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Controller VIA VT6307 IEEE1394a • Supporta 2 x porte IEEE1394a
Audio	• CMI9880 8-canale audio CODEC • Compatibile con le specifiche Intel Azalia
Doppia LAN	• Controller LAN Marvel 88E8001 Gigabit • Controller Fast Ethernet Realtek8100C 10/100 Mbps
Pannello posteriore I/O	• 1 x connettore tastiera PS/2 • 1 x connettore mouse PS/2 • 4 x porte USB • 2 x connettori RJ45 LAN • 1 x porta Seriale (COM1) • 1 x output SPDIF digitale • 1x input SPDIF digitale • Connettori linea-out/linea-in/microfono in
Caratteristic-he BIOS	• BIOS Award con 4Mb Flash ROM • Supporta Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Supporta specifiche di revisione ACPI 1.0B
I/O interno	• 1 x connettore di alimentazione 24-pin ATX e connettore 4-pin da 12 V

	• 1 x connettore floppy - supporta 360K ~ 2,88M Byte, 3 Mode FDDs o LS120 • 2 x connettori IDE • 6 x connettori Seriali ATA • 2 x supporti header USB 2.0 con 4 porte USB supplementari • 1 x 1394a header • 1 x SMBus header • 1 x interruttore del pannello frontale /LED header • 1 x pannello frontale header audio • 1 x LPT header • 1 x CHS1 header • 1 x SMI1 header • CD in header • Connettori CPUFAN/NB_FAN/SYSFAN
Form Factor	• Dimensione -ATX • 305mm x 244mm

Resumen de Características

CPU	• LGA775 Socket para procesador Intel Pentium4/Celeron • FSB 1066/800 MHz (Reloj Central 266/200 MHz) • Soporte Hyper-Threading Technology
Chipset	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memoria	• Arquitectura de memoria DDR Canal Dual • 4 x zócalos 240-pin DDR2 DIMM soporta hasta 4 GB • Soporta DDR2 533/400 • Soporta DIMMs No-ECC, sin buffer 1.8V DDR
Opciones de expansión	• 1 x PCI Express x16 • 2 x PCI Express x1 • 3 x ranuras PCI
Almacenaje	• Soportado por ICH6R - 2 x dispositivos Ultra DMA100/66 - 4 x dispositivos SATA - Configuración RAID 0, RAID 1 • Soportado por SiS180 - 2 x dispositivos Ultra DMA133/100/66 - 2 x dispositivos SATA - Configuración RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Controlador VIA VT6307 IEEE1394a • Soporta 2 x puertos IEEE1394a
Audio	• CMI9880 8-canales audio CODEC • Conforme con la especificación Intel Azalia
Dual LAN	• Controlador Marvel 88E8001 Gigabit LAN • Controlador Fast Ethernet Realtek8100C 10/100 Mbps
I/O del panel trasero	• 1 x conector de teclado PS/2 • 1 x conector de ratón PS/2 • 4 x puertos USB • 2 x conectores RJ45 LAN • 1 x puerto Serial (COM1) • 1 x salida SPDIF Digital • 1 x entrada SPDIF Digital • Conectores Line-out/Line-in/Micrófono
Característi-cas de BIOS	• Award BIOS con 4Mb Flash ROM • Soporta Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Soporta especificación ACPI revisión 1.0B
I/O Interno	• 1 x Conector de Suministro 24-pin ATX & Conector 4-pin 12 V

Español

	• 1 x conector Floppy - soporta 360K ~ 2.88M Bytes, FDD de 3 Modos o LS120 • 2 x conectores IDE • 6 x conectores Serial ATA • 2 x cabezales USB 2.0 soporta 4 puertos USB adicionales • 1 x cabezal 1394a • 1 x cabezal SMBus • 1 x interruptor del panel frontal/cabezal LED • 1 x cabezal de audio del panel frontal • 1 x cabezal LPT • 1 x cabezal CHS1 • 1 x cabezal SMI1 • Cabezal entrada de CD • Conectores CPUFAN/NB_FAN/SYSFAN
Factor de Forma	• Tamaño de ATX • 305mm x 244mm

Sumário de Características

CPU	• Tomada de parede LGA775 para processador Intel Pentium4/ Celeron • FSB 1066/800 MHz (Relógio Central de 266/200MHz) • Suporta Tecnologia de Hyper-Threading
Chipset	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memória	• Arquitectura de memória DDR bicanal • 4 x Tomada de parede 240 pinos DDR DIMM suporta até 4 GB • Suporta DDR2 533/400 • Suporta sem ECC (Código Corrector de Erros), 1.8V DDR DIMMs sem buffers
Opções de expansão	• 1 x PCI Express x 16 • 2 x PCI Express x 1 • 3 x Ranhuras PCI
Armazenam-ento	• Suportado por ICH6R - 2 x Dispositivos Ultra DMA100/66 - 4 x Dispositivos SATA - Configuração RAID 0, RAID 1 • Suportado por SiS180 - 2 x Dispositivos ultra DMA133/100/66 - 2 x Dispositivos SATA - Configuração RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Controlador VIA VT6307 IEEE1394a • Suporta 2 x portas IEEE1394a
Áudio	• CODEC áudio 8-canais CMI9880 • Cumpre com a especificação Intel Azalia
LAN duplo	• Controlador Marvel 88E8001Gigabit LAN • Controlador Ethernet Rápida Realtek8100C 10/100 Mbps
Painel traseiro I/O	• 1 x conector de teclado PS/2 • 1 x conector de rato PS/2 • 4 x portas USB • 2 x conectores RJ45 LAN • 1 x porta de Série (COM1) • 1 x Saída digital SPDIF • 1 x Entrada digital SPDIF • Line-out/Line-in/Conectores com entrada para microfone
Característi-cas BIOS	• Award BIOS com 4Mb Flash ROM • Suporta dispositivo Plug e Play 1.0A, APM 1.2, Multi Boot, DMI • Suporta especificação da revisão 1.0B ACPI
I/O interno	• 1 x Conector de Fonte de Alimentação 24 pinos ATX & Conector 4 pinos 12 V

	• 1 x Conector flexível - suporta 360K ~ 2.88M Bytes, FDDs de 3 Modos ou LS120 • 2 x Conectores IDE • 6 x Conectores de Série ATA • 2 x Colector USB 2.0 suporta 4 portas USB adicionais • 1 x Colector 1394a • 1 x Colector SMBus • 1 x Colector com interruptor/LED do painel traseiro • 1 x Colector de áudio do painel traseiro • 1 x Colector LPT • 1 x Colector CHS1 • 1 x Colector SMI1 • Colector com entrada para CD • Conectores CPUFAN/NB_FAN/SYSFAN
Coeficiente de Forma	• Tamanho ATX • 305mm x 244mm

特徴概要

プロセッサ	• Intel Pentium4/Celeron プロセッサ用のLGA775 ソケット • FSB 1066/800 MHz(266/200MHzのコアクロック) • Hyper-Threading 技術対応
チップセット	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
メモリ	• デュアルチャネルDDRメモリのアーキテクチャ • 4つの240ピンDDR2 DIMMソケットで最大4 GBまでサポート • DDR2 533/400サポート • Non-ECC非バッファー1.8V DDR DIMM
拡張スロット	• 1つのPCI Express x16スロット • 2つのPCI Express x1スロット • 3つのPCI スロット
保存装置	• ICH6Rチップセットがサポートするのは - 2つのUltra DMA100/66 デバイス - 4つのSATA デバイス - RAID 0、RAID 1の 構成 • SiS180がサポートするのは - 2つのUltra DMA133/100/66 デバイス - 2つのSATA デバイス - RAID 0、RAID 1、および RAID 0+1の 構成

IEEE 1394a	• VIA VT6307 IEEE1394a コントローラ • 2つのIEEE1394a ポートをサポート
オーディオ	• CMI9880 8チャネルオーディオCODEC • Intel Azalia 規格に準拠
デュアルLAN	• Marvel 88E8001 ギガバイトLAN コントローラ • Realtek8100C 10/100 Mbps 高速イーサーネットコントローラ
背面パネル入出力	• 1つのPS/2 キーボードコネクタ • 1 つのPS/2 マウスコネクタ • 4 つのUSBポート • 2 つのRJ45 LAN コネクタ • 1 つのシリアルポート(COM1) • 1 つのデジタルSPDIF出力 • 1 つのデジタルSPDIF入力 • ライン出力/ライン入力/マイクロホン入力のコネクタ
BIOSの諸機能	• 4 Mb Flash ROM のAward BIOS • Plug&Play 1.0A、APM 1.2、Multi Boot、およびDMIをサポート • ACPI revision 1.0B 規格に準拠
内部入出力	• 1 つの24ピンATX 電源サプライコネクタと4ピン12 V コネクタ

	• 1つのフロッピーディスクドライブコネクタ、360Kから2.88Mバイトの3 Mode FDDとLS120をサポート • 2つのIDEコネクタ • 6つのシリアルATAコネクタ • 2つのUSB 2.0ヘッダーでさらなる4つのUSBポートを増設可能 • 1つの1394a ヘッダー • 1 つのSMBusヘッダー • 1 つの前面パネルスイッチ/LED ヘッダー • 1つのフロントパネルオーディオヘッダー • 1つのLPT ヘッダー • 1 つのCHS1ヘッダー • 1 つのSMI1 ヘッダー • CD入力ヘッダー • CPUFAN/NB_FAN/SYSFAN コネクタ
寸法	• ATXサイズ • 305mm x 244mm

특성 요약

CPU	• 인텔 펜티엄 4/셀러론 프로세서를 위한 LGA775 소켓 • FSB 1066/800 MHz (266/200 MHz 코어 클록) • Hyper-Threading 기술 지원
칩셋	• Intel 925XE & ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
메모리	• 듀얼 채널 DDR 메모리 아키텍처 • 4 x 240 핀 DDR2 DIMM 소켓, 최대 4 GB 지원 • DDR2 533/400 지원 • Non-ECC, unbuffered 1.8V DDR DIMMs 지원
확장 옵션	• 1 x PCI 익스프레스 x16 • 2 x PCI 익스프레스 x1 • 3 x PCI 슬롯
저장	• ICH6R 지원 - 2 x Ultra DMA100/66 장치 - 4 x SATA 장치 -RAID 0, RAID 1 구성 • SiS180 지원 -2 x Ultra DMA133/100/66 장치 -2 x SATA 장치 -RAID 0, RAID 1, RAID 0+1 구성

IEEE 1394a	• VIA VT6307 IEEE1394a 컨트롤러 • 2 x IEEE1394a 포트 지원
오디오	• CMI9880 8-채널 오디오 코덱 • 인텔 Azalia 사양에 부합
듀얼 랜	• Marvel 88E8001 기가바이트 랜 컨트롤러 • Realtek8100C 10/100 Mbps 패스트 이더넷 컨트롤러
뒷 패널 I/O	• 1 x PS/2 키보드 커넥터 • 1 x PS/2 마우스 커넥터 • 4 x USB 포트 • 2 x RJ45 LAN 커넥터 • 1 x 시리얼 포트 (COM1) • 1 x 디지털 SPDIF 출력 • 1 x 디지털 SPDIF 입력 • 라인 출력/라인 입력/마이크 폰 입력 커넥터
BIOS 특성	• 4Mb 플래시 ROM의 Award BIOS • 플러그 앤 플레이 1.0A, APM 1.2, Multi Boot, DMI 지원 • ACPI 1.0B 사양 지원.
내부 I/O	• 1 x 24 핀 ATX 파워 써플라이 커넥터 및 4 핀 12 V 커넥터

	• 1 x 플로피 커넥터 - 360K ~ 2.88M Bytes, 3 모드 FDD 또는 LS120 지원 • 2 x IDE 커넥터 • 6 x 시리얼 ATA 커넥터 • 2 x USB 2.0 헤더, 추가적으로 4 개의 USB 포트 지원s • 1 x 1394a 헤더 • 1 x SMBus 헤더 • 1 x 앞 패널 스위치/LED 헤더 • 1 x 앞 패널 오디오 헤더 • 1 x LPT 헤더 • 1 x CHS1 헤더 • 1 x SMI1 헤더 • CD 입력 헤더 • CPUFAN/NB_FAN/SYSFAN 커넥터
규격	• ATX 사이즈 • 305mm x 244mm

功能摘要

中央處理器	• Intel Pentium4/Celeron 處理器的LGA775 插座 • 前端匯流排(FSB)為1066/800MHz (266/200MHz的核心時脈) • 支援超執行緒(Hyper-Threading)技術
晶片組	• Intel 925XE & ICH6R • 北橋晶片: Intel 925XE • 南橋晶片: Intel ICH6R
記憶體	• 雙通道DDR 記憶體架構 • 4個240針DDR2 DIMM 插槽支援至4 GB • 支援DDR2 533/400 • 支援非ECC型無緩衝1.8V DDR DIMM
擴充槽	• 1個PCI Express x16槽 • 2個PCI Express x1槽 • 3個PCI槽
儲存裝置	• 以ICH6R晶片支援 - 2個Ultra DMA100/66 裝置 - 4個SATA 裝置 - 支援RAID 0、及 RAID 1 設定 • 以 SiS180支援 - 2個Ultra DMA133/100/66 裝置 - 2個 SATA 裝置 - 支援RAID 0、RAID 1、及 RAID 0+1 設定

IEEE 1394a	• VIA VT6307 IEEE1394a 控制器 • 支援2個IEEE1394a 埠
音訊	• CMI9880 8聲道音訊CODEC • 相容於Intel Azalia規格
雙LAN	• Marvel 88E8001 Gigabit LAN 控制器 • Realtek8100C 10/100 Mbps 高速乙太網路控制器
背面板 輸出入介面	• 1個PS/2 鍵盤連接器 • 1個PS/2 滑鼠連接器 • 4個USB埠 • 2個RJ45 LAN 插孔 • 1個序列埠(COM1) • 1個數位SPDIF輸出連接器 • 1個數位SPDIF輸入連接器 • 線級輸出/線級輸入/麥克風輸入連接器
BIOS功能	• 採4Mb Flash ROM的Award BIOS • 支援Plug and Play 1.0A、 APM 1.2、 Multi Boot、及 DMI • 支援ACPI 修訂版1.0B 規格
內部輸出入 介面	• 1個24針ATX 電源供應器連接器及4針12 V 連接器

	• 1個軟碟機連接器，可支援360K至2.88M位元組之3 Mode 軟碟機及LS120軟碟機 • 2個IDE連接器 • 6個序列ATA 連接器 • 2個USB 2.0接頭，可支援4個額外的USB埠 • 1個1394a接頭 • 1個SMBus接頭 • 1個前面板開關及1個LED 接頭 • 1個前面板音訊接頭 • 1個LPT接頭 • 1個CHS1接頭 • 1個SMI1接頭 • CD音源輸入接頭 • CPUFAN/NB_FAN/SYSFAN連接器
主機板尺寸	• ATX 尺寸 • 305mm x 244mm

功能摘要

CPU	• 用于 Intel Pentium4/Celeron 处理器的 LGA775 插座 • FSB 1066/800MHz (266/200MHz 核心时钟) • 支持超线程(Hyper-Threading)技术
芯片组	• Intel 925XE & ICH6R • 北桥：Intel 915XE • 南桥：Intel ICH6R
内存	• 双通道 DDR 内存架构 • 4 个 240 线 DDR2 DIMM 插槽，内存最大可支持 4 GB • 支持 DDR2 533/400 • 支持非 ECC，非缓冲 1.8V DDR DIMM
扩展选项	• 1 个 PCI Express x16 • 2 个 PCI Express x1 • 3 个 PCI 插槽
存储	• 支持 ICH6R - 2 个 Ultra DMA100/66 设备 - 4 个 SATA 设备 - RAID 0, RAID 1 配置 • 支持 SiS180 - 2 个 Ultra DMA133/100/66 设备 - 2 个 SATA 设备 - RAID 0, RAID 1, RAID 0+1 配置

IEEE 1394a	• VIA VT6307 IEEE1394a 控制器 • 支持 2 个 IEEE1394a 接口
音频	• CMI9880 8 声道音频编解码器 • 符合 Intel Azalia 规格
双 LAN	• Marvel 88E8001 千兆 LAN 控制器 • Realtek8100C 10/100 Mbps 高速以太网控制器
后面板 I/O	• 1 个 PS/2 键盘接口 • 1 个 PS/2 鼠标接口 • 4 个 USB 端口 • 2 个 RJ45 LAN 接口 • 1 个串口 (COM1) • 1 个数字量 SPDIF 输出 • 1 个数字量 SPDIF 输入 • 线出/线入/麦克风入接口
BIOS 功能	• Award BIOS (4Mb Flash ROM) • 支持即插即用 1.0A、APM 1.2、Multi Boot、DMI • 支持 ACPI Revision 1.0B 规格
集成 I/O	• 1 个 24 针 ATX 电源接口和 1 个 4 针 12 V 接口

	• 1 个软驱接口- 支持 360K ~ 2.88M 字节，3 Mode FDD 或 LS120 • 2 个 IDE 接口 • 6 个串行 ATA 接口 • 2 个 USB 2.0 接头，支持另外 4 个 USB 端口 • 1 个 1394a 接头 • 1 个 SMBus 接头 • 1 个前面板开关/LED 接头 • 1 个前面板音频接头 • 1 个 LPT 接头 • 1 个CHS1 接头 • 1 个SMI1 接头 • CD 输入接头 • CPUFAN/NB_FAN/SYSFAN 接口
外形	• ATX 尺寸 • 305mm x 244mm

Характеристики

CPU	• Разъем LGA775 для процессоров типа Intel Pentium4/Celeron • FSB 1066/800МГц (тактовая частота 266/200МГц) • Поддержка технологии Hyper-Threading
Чипсет	• Intel 925XE и ICH6R • Северный мост: Intel 925XE • Южный мост: Intel ICH6R
Память	• Архитектура памяти Dual-channel DDR • Четыре 240-штырьковых сокета для DDR2 DIMM с поддержкой до 4 ГБ памяти • Поддержка DDR2 533/400 • Поддержка небуферизуемой памяти Non-ECC 1.8V DDR DIMM
Возможности расширения	• 1 слот PCI Express x16 • 2 слот PCI Express x1 • 3 слота PCI
Массовая память	• Поддерживаемая ICH6R - 2 устройства Ultra DMA100/66 - 4 устройства SATA - Конфигураци RAID 0 и RAID 1 • Поддерживаемая SiS180 - 2 устройства Ultra DMA133/100/66 - 2 устройства SATA - Конфигураци RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Контроллер VIA VT6307 IEEE1394a • Поддержка 2 портов IEEE1394a
Аудио	• 8-канальный аудио CODEC CMI9880 • Совместимость с технологией Intel Azalia
Dual LAN	• Контроллер Marvel 88E8001 Gigabit LAN • Контроллер Realtek8100C 10/100 Mbps Fast Ethernet
Гнезда входа/выхода на тыльной панели	• 1 гнездо клавиатуры PS/2 • 1 гнездо мыши PS/2 • 4 порта USB • 2 гнезда RJ45 LAN • 1 серийный порт (COM1) • 1 гнездо выхода Digital SPDIF • 1 гнездо входа Digital SPDIF • Гнездо для подключения микрофона, гнезда аудио-входа и выхода
Особенности BIOS'a	• Award BIOS с 4Мб Flash ROM • Поддержка Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Поддержка ACPI вер.1.0B
Внутренние гнезда входа/выхода	• 1 24-штырьковое гнездо питания ATX и 4-штырьковое гнездо 12 V

	• 1 гнездо подключения накопителя НГМД с поддержкой форматов 360K ~ 2.88МБ, 3 формата FDD или LS120 • 2 гнезда IDE • 6 гнезд Serial ATA • 2 гнезда USB 2.0 с поддержкой 4 дополнительных портов USB • 1 гнездо 1394a • 1 гнездо SMBus • 1 гнездо выключателя/индикатора передней панели • 1 аудио гнездо передней панели • 1 гнездо LPT • 1 гнездо CHS1 • 1 гнездо SMI1 • Входное гнездо CD • Гнезда вентиляторов CPU, северного моста, системного вентилятора
Габариты	• Стандарт ATX • 305мм x 244мм

Cechy

CPU	• Gniazdo LGA775 dla procesora Intel Pentium4/Celeron • FSB 1066/800MHz (zegar 266/200MHz) • Obsługuje technologię Hyper-Threading
Chipset	• Intel 925XE & ICH6R • Mostek północny: Intel 925XE • Mostek południowy: Intel ICH6R
Pamięć	• Architektura pamięci dwukanałowej DDR • Cztery 240-nóżkowe złącza DDR2 DIMM obsługujące do 4 GB pamięci • Obsługuje DDR2 533/400 • Obsługuje niebuforowaną pamieć 1.8V DDR DIMM typu non-ECC
Możliwości rozbudowy	• 1 złącze PCI Express x16 • 2 złącza PCI Express x1 • 3 złącza PCI
Urządzenia pamięc masowej	• Obsługiwane przez ICH6R - 2 urządzenia Ultra DMA100/66 - 4 urządzenia SATA - Konfiguracje RAID 0 i RAID 1 • Obsługiwane przez SiS180 - 2 urządzenia Ultra DMA133/100/66 - 2 urządzenia SATA - Konfiguracje RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Kontroller VIA VT6307 IEEE1394a • Obsługuje 2 złącza IEEE1394a
Audio	• 8-kanałowy audio CODEC CMI9880 • Zgodność z technologią Intel Azalia
Dual LAN	• Kontroller Marvel 88E8001 Gigabit LAN • Kontroller Realtek8100C 10/100 Mbps Fast Ethernet
Gniazda We/Wy na tylnym panelu	• 1 gniazdo klawiatury PS/2 • 1 gniazdo myszy PS/2 • 4 gniazda USB • 2 złącza RJ45 LAN • 1 port szeregowy (COM1) • 1 gniazdo wyjścia Digital SPDIF • 1 gniazdo wejścia Digital SPDIF • Gniazda wejściowe i wyjściowe audio, gniazdo wejściowe mikrofonowe
Cechy BIOSu	• Award BIOS, zaopatrzony w 4Mb Flash ROM • Obsługuje technologie Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Obsługuje technologię ACPI w wersji 1.0B
Wewnętrzne gniazda We/Wy	• 1 gniazdo 24-nóżkowe zasilacza ATX i 4-nóżkowe gniazdo zasilania 12 V

	• 1 gniazdo napędu dyskietek, obsługuje formaty 360K ~ 2.88M Bajt, 3 Mode FDD lub LS120 • 2 złącza IDE • 6 złącz Serial ATA • 2 złącza USB 2.0 obsługujące 4 dodatkowe porty USB • 1 złącze 1394a • 1 złącze SMBus • 1 złącze włącznika / wskaźnika LED na panelu przednim • 1 gniazdo audio na panelu przednim • 1 złącze LPT • 1 złącze CHS1 • 1 złącze SMI1 • Gniazdo wejściowe CD • Gniazda wiatraka CPU, wiatraka mostku północnego, wiatraka systemowego
Wymiary	• Standard ATX • 305mm x 244mm

Souhrn vlastností

CPU	• Patice LGA775 pro procesory Intel Pentium4/Celeron • Frekvence sběrnice FSB 1066/800 MHz (frekvence jádra 266/200 MHz) • Podpora technologie „Hyper-Threading“
Čipová sada	• Intel 925XE a ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Paměť	• Dvojkanálová paměťová architektura DDR • 4 x 240kolíková patice DDR2 DIMM, podporující paměť do kapacity až 4 GB • Podpora DDR2 533/400 • Podpora modulů Non-ECC 1,8 V DDR DIMM bez vyrovnávací paměti
Rozšiřující sloty	• 1 x slot PCI Express x16 • 2 x slot PCI Express x1 • 3 x slot PCI
Disková zařízení	• Podporovaná ICH6R - 2 x zařízení Ultra DMA100/66 - 4 x zařízení SATA - Konfigurace RAID 0 a RAID 1 • Podporovaná SiS180 - 2 x zařízení Ultra DMA133/100/66 - 2 x zařízení SATA - Konfigurace RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• Řadič VIA VT6307 IEEE1394a • Podpora 2 portů IEEE 1394a
Zvuk	• 8kanálový zvukový kodek CMI9880 • Splňuje požadavky standardu Intel Azalia
Duální LAN	• Řadič gigabitový sítě LAN Marvel 88E8001 • Řadič sítě Fast Ethernet 10/100 Mbps, Realtek8100C
Vstupy/výstupy na zadním panelu	• 1x konektor klávesnice PS/2 • 1x konektor myši PS/2 • 4x port USB • 2x konektor LAN RJ45 • 1x sériový port (COM1) • 1x digitální výstup SPDIF • 1x digitální vstup SPDIF • Konektory linkový vstup/linkový výstup/mikrofon
Vlastnosti BIOS	• Award BIOS s 4 Mb Flash ROM • Podpora Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Podpora standardu ACPI verze 1.0B
Interní vstupy/výstupy	• 1x 24kolíkový napájecí konektor ATX a 4kolíkový konektor 12 V

	• 1x konektor floppy diskových mechanik – podpora 360 kB až 2,88 MB, 3 režimy FDD nebo LS120 • 2x konektor IDE • 6x konektor Serial ATA • 2x rozhraní USB 2.0 s podporou dalších 4 USB portů • 1x rozhraní 1394a • 1x rozhraní SMBus • 1x rozhraní pro spínač na předním panelu/LED • 1x rozhraní pro zvukový vstup/výstup na předním panelu • 1x rozhraní LPT • 1x rozhraní CHS1 • 1x rozhraní SMI1 • Rozhraní vstupu CD • Konektory CPUFAN/NB_FAN/SYSFAN
Velikost	• Rozměry standardu ATX • 305mm x 244mm

Sumarul caracteristicilor

Unitatea centrală (CPU)	• Soclu LGA775 pentru procesoare Intel Pentium4/Celeron • FSB de 1066/800 MHz (Frecvenţă internă de 266/200 MHz) • Compatibil cu tehnologia Hypre-Threading
Set de chipuri	• Intel 925XE şi ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memorie	• Architectură cu module de memorie DDR cu canal dual • Patru socluri DDR2 DIMM cu 240 de ace, capacitate maximă de 4 GB • Funcţionează cu module DDR2 de 533/400 • Funcţionează cu module DDR DIMM de 1,8 V fără zonă tampon, ne-ECC
Sloturi de extindere	• Un slot PCI Express de 16x • Două sloturi PCI Express de 1x • Trei sloturi PCI
Stocare	• Compatibilă cu ICH6R - Două unităţi Ultra DMA100/66 - Patru unităţi SATA - Configuraţie RAID 0 şi RAID 1 • Compatibilă cu SiS180 - Două unităţi Ultra DMA133/100/66 - Două unităţi SATA devices - Configuraţie RAID 0, RAID 1 şi RAID 0+1

IEEE 1394a	• Controler VIA VT6307 IEEE1394a • Permite două porturi IEEE1394a
Audio	• CODEC audio CMI9880 cu 8 canale • Compatibil cu specificaţia Intel Azalia
LAN dual	• Controler LAN Marvel 88E8001 Gigabit • Controler Fast Ethernet Realtek8100C 10/100 Mbps
I/O de pe panoul din spate	• Un conector de tastatură PS/2 • Un conector de mouse PS/2 • Patru porturi USB • Două conectoare LAN RJ45 • Un port serial (COM1) • O ieşire SPDIF digitală • O intrare SPDIF digitală • Conectoare pentru intrare/ieşire audio şi microfon
Caracteristici BIOS	• Award BIOS cu Flash ROM de 4 Mb • Compatibil cu Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • Compatibil cu ACPI, versiunea 1.0B
I/O internă	• Un conector cu 24 ace pentru alimentare cu energie şi conector de 12 V cu 4 ace

	• Un conector Floppy, pentru dischete de 360 KB–2,88 MB, FDD cu 3 moduri sau LS120 • Două sloturi IDE • Şase conectoare ATA seriale • Două conectoare USB 2.0, cu posibilitate pentru alte 4 porturi USB • Un conector 1394a • Un conector SMBus • Un comutator/conector LED pe panoul frontal • Un conector audio pe panoul frontal • Un conector LPT • Un conector CHS1 • Un conector SMI1 • Conector intrare CD • Conectoare CPUFAN/NB_FAN/SYSFAN
Caracteristici externe	• Dimensiuni ATX • 305mm x 244mm

Параметри

Процесор	• Сокет LGA775 за процесор Intel Pentium4/Celeron • Шина FSB 1066/800MHz (266/200MHz Core Clock) • Поддръжка на технологията Hyper-Threading
Чипсет	• Intel 925XE & ICH6R • Северен мост: Intel 925XE • Южен мост: Intel ICH6R
Памет	• двуканална архитектура на паметта DDR • 4 слота 240-pin за DDR2 DIMM с поддръжка на общ капацитет до 4 GB • поддръжка на модули DDR2 533/400 • поддръжка на Non-ECC небуферирани модули 1.8V DDR DIMM
Слотове за разширяване	• 1 слот PCI Express x16 • 2 слота PCI Express x1 • 3 слота PCI
Възможности за съхраняване на данни	• поддържани от ICH6R - 2 устройства Ultra DMA100/66 - 4 устройства SATA - RAID 0 и RAID 1 • поддържани от SiS180 - 2 устройства Ultra DMA133/100/66 - 2 устройства SATA - RAID 0, RAID 1, RAID 0+1

IEEE 1394a	• контролер VIA VT6307 IEEE1394a • поддръжка на 2 порта IEEE1394a
Аудио	• 8-канален аудио CODEC CMI9880 • съвместимост със спецификацията Intel Azalia
Dual LAN	• Мрежов контролер Marvel 88E8001 Gigabit • Fast Ethernet контролер Realtek8100C 10/100 Mbps
Портове Вход/Изход на задния панел	• 1 порт PS/2 за клавиатура • 1 порт PS/2 за мишка • 4 порта USB • 2 конектора RJ45 LAN • 1 сериен порт (COM1) • 1 цифров изход SPDIF • 1 цифров вход SPDIF • Линеен вход/линеен изход/вход за микрофон
Параметри на BIOS	• Award BIOS с 4Mb Flash ROM • поддръжка на спецификацията Plug and Play 1.0A, APM 1.2, Multi Boot, DMI • поддръжка на спецификацията ACPI revision 1.0B
Интегриран Вход/ Изход контролер	• 1 конектор 24-pin ATX Power Supply и конектор 4-pin 12 V

	• 1 конектор за флопидисково устройство с поддръжка на устройства 360K ~ 2.88M Bytes, 3 Mode или LS120 • 2 конектора IDE • 6 конектора Serial ATA • 2 колектора USB 2.0 с поддръжка на 4 допълнителни USB порта • 1 колектор 1394a • 1 колектор SMBus • 1 колектор за бутоните и LED-индикацията на предния панел • 1 колектор за аудио вход/изход на предния панел • 1 колектор LPT • 1 колектор CHS1 • 1 колектор SMI1 • колектор за CD in • конектори CPUFAN/NB_FAN/SYSFAN
Размери	• ATX • 305mm x 244mm

Jellemzők összefoglalása

Központi egység(CPU)	• LGA775 foglalat Intel Pentium4/Celeron processzoroknak • 1066/800 MHz-es FSB (266/200 MHz-es központi órajel) • Támogatja a Hyper-Threading technológiát
Lapkakészlet	• Intel 925XE és ICH6R • North Bridge: Intel 925XE • South Bridge: Intel ICH6R
Memória	• Duál csatornás DDR memória kiépítés • Négy 240 tűs DDR2 DIMM foglalat, maximum 4 GB-os kapacitással • 533/400-as DDR2 egységekkel működik • 1,8 V-os puffermentes nem ECC DDR DIMM egységeket is támogat
Bővítési foglalatok	• Egy 16-szoros PCI Express • Két egyszeres PCI Express • Három PCI foglalat
Tárolás	• Az ICH6R által támogatott - Két Ultra DMA 100/66 eszköz - Négy SATA eszköz - RAID 0 és RAID 1 konfiguráció • A SiS180 által támogatot - Két Ultra DMA 133/100/66 eszköz - Két SATA eszköz - RAID 0 RAID 1 és RAID 0+1 konfiguráció

IEEE 1394a	• VIA VT6307 IEEE1394a vezérlő • Két IEEE1394 portot támogat
Audio	• 8 csatornás CMI9880 audio CODEC • Megfelel az Intel Azalia specifikációnak
Duál LAN	• Marvel 88E8001 Gigabit LAN vezérlő • Realtek8100C 10/100 Mbps Fast Ethernet vezérlő
Hátsó panelen levő I/O	• Egy PS/2 billentyűzet csatlakozó • Egy PS/2 egércsatlakozó • Négy USB port • Két RJ45 LAN csatlakozó • Egy soros port (COM1) • Egy digitális SPDIF kimenet • Egy digitális SPDIF bemenet • Audio kiemnet/bemenet/mikrofon csatlakozó
BIOS jellemzők	• Award BIOS 4 Mb Flash ROM-mal • 1.0A Plug and Play, APM 1.2, Multi Boot, DMI támogatása • Kompatibilis az ACPI 1.0B változatával
Belső I/O	• Egy 24 tűs ATX tápforrás csatlakozó és négytűs 12 V-os csatlakozó

	• Egy floppy meghajtó 360 kB–2,88 MB lemezeknek, 3 üzemmódú FDD meghajtók vagy LS120 • Két IDE foglalat • Hat soros ATA csatlakozó • Két USB 2.0 csatlakozó, és további 4 USB porttal tud működni • Egy 1394a csatlakozó • Egy SMBus csatlakozó • Egy elülső panelen levő kapcsoló/LED csatlakozó • Az elülső panelen levő audio csatlakozó • Egy LPT csatlakozó • Egy CHS1 csatlakozó • Egy SMI1 csatlakozó • CD bemenet csatlakozó • CPUFAN/NB_FAN/SYSFAN csatlakozók
Alaki jellemzők	• ATX méret • 305mm x 244mm

Legal Notices

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Federal Communications Commision (FCC)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment onto an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Shielded interconnect cables and a shielded AC power cable must be employed with this equipment to ensure compliance with the pertinent RF emission limits governing this device. Changes or modifications not expressly approved by the system's manufacturer could void the user's authority to operate the equipment.

Declaration of Conformity

This device complies with part 15 of the FCC rules. Operation is subject to the following conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Canadian Department of Communications

This class B digital apparatus meets all requirements of the Canadian Interference-causing Equipment Regulations.

Cet appareil numérique de la classe B respecte toutes les exigences du Réglement sur le matériel brouilieur du Canada.